

# THE MACDONALD COLLEGE MAGAZINE.

“Mastery for Service.”

Published by the Students.

---

Vol. IV.

APRIL-MAY, 1914.

No. 4.

---

## Magazine Staff.

### Editorial:—

Editor-in-Chief—J. E. McOuat, Agr., '15.

### Assistant Editors:—

W. Sadler, Agr., '15.

Miss B. Pomfret, Teachers, '14.

Miss E. Robinson, H. Sci., '15.

Faculty—Professor Klinck.

### Business:—

Business Manager—A. G. Taylor, Agr., '15.

Ass't. Business Managers—G. Hay, Agr., '16;  
Miss Lawson, Miss Planche.

Advertising Manager—H. Mitchell, Agr., '15.

### Department Editors:—

Athletics—L. R. Jones, Agr. '16; Miss Travers.

Agronomy—H. Evans, Agr., '15.

Alumni—J. H. McCormick, Agr. '15; Miss de Villiers, Miss O'Connor.

Artist—Miss Egg.

Horticulture—C. E. Chute, Agr., '15.

Humorists—F. Presley, Agr. '15; Miss Aylen, Miss Allen.

Live Stock and Dairying—L. Westbrooke, Agr., '15.

Locals—C. Fraser, Agr., '16; Miss Bardorf, Miss B. Macfarlane.

Poultry—J. Moynan, Agr., '16.

Proof Readers—J. H. McOuat, Agr., '16;  
E. G. B. Reid, Agr., '17.

Collector—J. E. Russell, Agr., '17.

## EDITORIAL.

In venturing to make a few observations upon *aims in life and their attainment* we are well aware that a great risk is being run of our being considered pedantic. We would therefore preface anything it may be our privilege to say by asking our readers to consider that we are talking to ourselves.

Having been brought into this world of joys and sorrows, of pleasures and pains, of possibilities and disappointments, our first duty is to look around and decide upon that which we propose to make of ourselves.

The Dean of an American college has

recently given a terse but correct summing up of what should be our purpose in life.

His appeal is:

Firstly.—Be a man.

Secondly.—Be a man among men.

Thirdly.—Do something which shall endure.

If we may presume to enlarge upon these, we would say that in order to be men we must seek to understand matters for ourselves, inculcate the habit of forming our own opinions, and decline to accept them ready-made.

As a working hypothesis, let us remember that around us are men of calibre, men of worth, and men of sterling character. We must think of men as such, for it is only by so doing that our own being can ever hope to become imbued with qualities of like nature.

Bacon has said that suspicions among thoughts are like bats among birds—they ever fly by twilight.

Let us think of men in the open daylight of our thoughts and thus in the widest sense be true to ourselves, for the words of the immortal bard are still as virile as ever: "To thine own self be true, and it shall follow as the night the day thou canst not then be false to any man."

To be a man involves being an idealist, and a constructive idealist, as it is only by our conception and pursuit of the ideal that we can ever hope to succeed.

Maeterlinck, the originator of that beautiful dramatic picture "The Blue Bird", has told us that our ideal will never be met with unless we have first achieved it within ourselves.

How opportune are the words of Goethe:

"Are you in earnest? Seize this very minute,  
What you can do or dream you can begin it.  
Boldness has genius, power and magic in it.  
Only engage and then the mind grows heated,  
Begin and then the work will be completed."

For a moment may we consider the second point "Be a Man among men."

Let us not be content to be merely units in the great universe; let us not belittle ourselves; be modest, but not to the point of self-effacement.

It is important, however, that we realize that every man both before and after he becomes a leader must be a servant, and the greater the leader, the greater the obligation for service.

No matter be it as politicians, administrators, scientists, theologians or athletes, we must be prepared to serve. Our capacity for leadership follows, not precedes, our ability to serve. The psychological nucleus of greatness had been discovered by the poet when he wrote:

The wisest man could ask no more of fate  
Than to be simple, modest, manly, true,  
Safe from the many, honoured by the few;  
Nothing to court in church or world or state,  
But inwardly in secret to be great.

Finally, "do something which shall endure," that is, strive to leave behind us something accomplished, something done.

This is not always easy. We may have many falls and many and grievous failures, but let us remember the beautiful thought of Longfellow:

"The heights by great men reached  
and kept  
Were not attained by sudden flight,  
But they, while their companions slept  
Were toiling upwards in the night."

Oftimes we are inclined to become downhearted when we think of the vast world of knowledge, that knowledge of which we have such a meagre portion. We turn, however, for consolation and encouragement to the optimistic teaching of that Queen of American poets, Ella Wheeler Wilcox:

"There is no chance, no destiny, no fate,  
Can circumvent or hinder or control  
The firm resolve of a determined soul."

Once more a large graduating class of teachers is about to pass from Macdonald out into its chosen field of activity. Probably that field was never more in need of efficient workers than it is to-day. The cry for teachers of ability is becoming greater every year and the supply is not getting very much larger. In speaking of the "cry" we do not mean so much the demand for teachers in our cities and towns, but we do emphasize that term when applied to our country districts.

Ten or fifteen years ago our country schools were better supplied with qualified teachers than they are to-day. At present, districts in our rural sections have in some cases as high as 70% of the teachers without diplomas, while the situation all over the Province is *serious*. Had all these unqualified teachers a good high school education matters would be much different, but, sad to relate, many so-called "teachers" are found in our schools at present, in possession of very little more knowledge than the pupils they face every morning. In addition to this, some of our schools cannot obtain teachers of any kind and remain closed, while the children, the basis of our nation's future greatness, must grow up ignorant of the very essentials of an ordinary elementary education.

The city of Montreal claims the great majority of our teachers, and even then can hardly obtain the supply she needs. This leaves the country in a sad plight indeed, for the longer the situation continues the worse it becomes. If the farmers' children do not get sufficient education in the country school in order to enable them to at length go to an academy or model school while they are young and bright, our supply of teachers is thus going to be again reduced, for a very large percentage of our teachers come from the country. The situation

thus increases in seriousness very quickly and must be faced immediately if we would avoid irreparable damage.

There are many who state that the salaries in the country districts are too low. In many cases they are, but even in those places where the salary is good it is next to impossible to obtain teachers. It would seem that in many schools, judging by the product turned out, that the salary paid is according to the teacher's ability.

The salary question has been dealt with, and many school boards in country districts have declared their willingness to pay a minimum salary of thirty dollars per month for ten months to good elementary teachers. The result of this offer was almost negligible, and no better or no more teachers were forthcoming.

It is hard to suggest a solution to a situation which has existed for so long, for which there seems no cure, and for which there has been so little done. It would seem logical, however, unless our country folk are not sensible to their needs, that if a good supply of good teachers was to be had that they would soon offer salaries in keeping with the dignity of the profession. Farmers generally know a good thing when they see it. They pay a high price for a corn binder because it does work worthy of that price. They pay a hired man \$2.00 per day because he gives value for it. They also know a good country school teacher when they see her, but she is so rare as to be a curiosity. The ordinary teacher to-day is not fitted for the leadership of a country school. Teaching in a country school means more than it does in the city.

In the city a teacher becomes a non-entity in the life of her pupils once she dismisses them at the close of the day.

Much less does she see or hear of the daily life of the parents who send those children. In addition, there is a principal who must be obeyed and thus individuality is lost. We might almost say her mission is a purely educational period.

In the country the reverse is the case. The pupils and people of that little school regard the teacher as their leader, their friend and teacher. They look to her to lead their games, help in entertainments of every kind, be original in her ideas, visit their homes, and show an interest in every phase of their daily life. It is only in so much as she does this that she is considered a successful teacher by the members of the community.

Teachers of this nature are very rare at the present time. We believe that if in some way the supply of such leaders could be increased that the salaries they would receive would be in accordance with their ability. These high salaries might not come at once, but we believe that they would increase as soon as our teachers showed that they were worthy of them. It is of very little use to-day for country school officials to offer high wages, for the person who replies to such an offer is likely to be no better than the one who would apply if the salary offered were low. The reason for this is simple. *There are very few teachers available*; for the city and towns are taking them all.

Thus we see we cannot blame the farmer altogether for the present situation. We keep shouting, "Put up your salaries" and forget that there is nothing for him to put the salary up for. We also believe that if there were more teachers being trained, that a great many would go to the country the same as they used to, before the demands of the city became so insistent, and when

the salaries of the country school were not nearly so high as they are to-day.

The question is a very complex one, and many remedies have either been suggested or tried. Permits, second class diplomas and summer schools have all been given a trial. Perhaps the last is tending to become the most important factor in the temporary relief of the situation. That many are willing to teach is shown by the fact that last year there were in the neighborhood of 300 applications for permission to take the summer school course. This shows that there is an abundance of help available if conditions can be made suitable to further its development. Every person should do his best to further these temporary solutions until a permanent one can be found.

Much opposition has been given at times to the practice of hiring "non-professional teachers" but no reasonable alternative has been suggested. Were it not for such "non-professionals" to-day, probably half of our country schools would close. Let us think the situation over seriously, be thankful for even momentary relief, and let all work together towards bringing to a satisfactory condition of efficiency our all-important rural schools.

□ □ □

In our last issue we wrote in a general way concerning the need of more Agricultural Education among our rural communities. In that article we dealt more particularly with that class of education which would the more affect the elementary school and thus all the smaller children of the community.

We now wish to say a few words upon the educational conditions as they apply more particularly to the model schools and academies of this province.

In practically all of these institutions,



apart from those found in the cities and larger towns, the great majority of the pupils, especially in the upper grades, are from the country.

Naturally this leads us to expect that the studies in most of our schools would have some bearing upon the daily life of the pupil to whom it is imparted, and that in substance and manner of presentation it would bear a relation towards the probable after life of the pupil.

This we do not find to be the case. The whole trend of our system of education to-day is such that it educates away from the country to the city. The course is laid down without the least regard for variation in conditions. Why, we ask, in the name of right and justice, should a course meant for city people be forced upon the country academy without sufficiently varying the conditions of such a course as to make the studies of her pupils suitable to their surroundings and their daily life.

Do not misunderstand us. We are not reactionists, nor extremists. We do not wish to have our schools become a place where even reading and writing would be neglected in order to introduce now ideas. What we desire is a blending, a harmony of ideas along educational lines that may give each class in our midst a fair chance. The intending mechanic should not have to study Botany, and he does not. On the other hand, the intending farmer, agricultural student, or teacher, must study Algebra, Geometry and Latin. No one can prove to us that Geometry is any more essential to a boy who wishes to farm than is Botany, Physics, Chemistry, Nature Study or Veterinary Physiology. We claim he should study what he will need most in his work after he leaves school. It is the only sensible view to take, and we care not who may disagree, for this is the view which in the near future

must and will be adopted by those who shape our educational policy.

It will be adopted, we say, because the farmer is slowly but surely becoming more independent and aggressive in his actions in daily life. Soon he is going to demand changes, and they will be granted.

A change is taking place even at present in our educational system. We notice in a well thought out article by "Quebec Student" in "Under the Desk Lamp," that the Huntingdon School authorities are going to erect a new Academy and that an Agricultural Department is going to be specially fitted up for the study of subjects which lie along agricultural lines.

We wish to point this instance out as an example of what is going to take place in many other centres in this province.

Once our policy of education in the country high school is changed and our teachers have directed their energies in this new direction, a vast improvement must arise. More of our country boys and girls will reach our academies and take part in a course adapted to their needs, and in which they will have a natural interest. Then as "Quebec Student" states, we will not have the students in this institution from most of our schools, taking the time of a professor during their first year trying to learn the five parts of a flower. McGill University expects her students to be well grounded when they reach her doors. Why then should not Macdonald expect her students to possess similar qualities when they arrive? It is unfair to our College and our professors, in that it causes loss of time and efficiency, it is unfair to those students who, more fortunate than most of us, have procured such elementary knowledge before their arrival. It is unfair to us all, in that we lose much time of a

valuable and possibly scientific course, in learning mere elementary knowledge.

Let us work and strive for a change of condition in our schools which may bring about such a condition as will do much towards improving the conditions of the rural students in our academies, and at the same time increase the amount of benefit which may be derived from our College course.

□ □ □

In the last issue of this MAGAZINE reference was made to the courses of lectures on Economics to be given to the Junior Year by Dr. Hemmion and Mr. W. C. Good, B. A.

In addition to these lectures, the Juniors have taken the usual course in "Marketing," under Professor Barton, and Professor Klenck has been good enough to give a series of valuable addresses to the two Senior Years, under the auspices of the Y.M.C.A., on the pressing problems of present day rural life.

Those students who have had the good fortune to attend these various lectures cannot have failed to be impressed with the fundamental nature of the subject under discussion.

Just as a thorough knowledge of history is necessary in order that the political and social evolutions of a country and its people may be traced, so is it becoming increasingly recognized that a true appreciation of the economic phase of national and international life is in the highest degree essential, if we are to be competent to successfully attack and dispose of the problems which face us to-day.

It is only within the last few years that in this country any attention whatever has been paid to the science of economics; and we are more than glad to hear that at the opening of the next

academic year, a more extended course in this science is to be included in the curriculum of our School of Agriculture.

Investigations and teachings relative to the theory and practice of agriculture were primarily and no doubt rightly, directed towards the accomplishment of increased production. This is all right as far as it goes; but unless maximum production is accompanied by remunerative distribution, the critics will begin to question very seriously the wisdom of the hitherto accepted creed of the agriculturist, to be able to grow two blades of grass where only one existed before.

As proof of this we have only to study the reports of the recent meetings of the Grain Growers of our Western Provinces, and the last Annual Report of the U.S.A. Bureau of Statistics.

The latter feels so strongly on the matter that agriculturists are advised to take up the question of distribution and marketing for themselves, and make a determined effort to eliminate the middleman.

This is a matter of business farming, and is to be successfully practised by a study of the art of getting a living.—*Economics*.

Why is it that in the School for Teachers such emphasis is laid upon the art of teaching quite irrespective of the particular matter to be taught? it is an admission that knowledge is only utilisable when properly applied.

It is this application of knowledge obtained that a profound study of economics will make possible.

Every country in the van of progress is to-day bestowing an enormous amount of attention upon the subject; in the country across the line this has lately been recognised in the agricultural sense by the appointment to the ministry of agriculture of a man outstanding

for his wide knowledge of, and his keen appreciation of the economic necessities of the agricultural community.

Again, this is an age of social reform and national regeneration; as witness the important measures placed upon the statute books within recent years, of Germany, Scandinavia, Great Britain, the United States, and other countries.

The question of economics, both political and rural, is inseparably interwoven with the process of social uplift and regeneration; for it may be said broadly speaking that no social reforms in our rural communities can succeed, which are not founded upon a sound economic basis. The converse is equally true, that no plea of economic necessity can justify conditions which are plainly indefensible from the humane or national point of view.

In this country, perhaps more than any other country in the world, is the welfare of agriculture the very corner stone of the whole fabric of the welfare of the nation; and the solution

of many of our national problems would appear to rest in the hands of those who are engaged in the various phases of agricultural work.

To those who graduate in agriculture from Macdonald College is extended an unique privilege; and upon them devolves an enormous responsibility.

They must not only be able to teach men how to farm and show men how farming can be most successfully carried on, but they must be prepared to put the life blood of progress, social, economic, moral and intellectual into their college, their community, their country, their province, and their nation.

It is for this reason that we appreciate the lectures of the past; and it is on this account that we welcome in the highest measure the decision of the authorities to place at the disposal of the students in the School of Agriculture greater facilities in the future for a more thorough and extended study of the theory and practice of the science of economics.



A Masquerade Medley.



## Cultural and Breeding Results With Alfalfa at Macdonald College.

By L. S. KLINCK, Professor of Cereal Husbandry.

**S** EVEN years' work with alfalfa has given, on an average, nearly three cuttings of nutritious hay each year and a substantial fourth crop has been allowed to freeze down for winter protection. These results indicate that any land in good physical condition, free from acid, moderately rich and well drained, whether naturally or artificially, is suitable for growing alfalfa. Every year finds this crop demonstrating its ability to give satisfactory returns in the Province in districts and on soils heretofore regarded as unsuitable.

Variegated alfalfas, such as Grimm and strains of Grimm, have, with us, not only proved more hardy than other sorts of alfalfa, but have also shown themselves to be decidedly more cold-resistant than common red clover or alsike. The row on the left of Fig. 1, labelled "Lyman" is the Grimm variety, and shows clearly the ability of this al-

falfa to withstand adverse winter conditions much better than the other commercial sorts shown on the right. If, however, the stand of the hardiest alfalfas is lost as a result of freezing or of smothering by ice, as sometimes occurs, it is generally advisable to break up the sod and reseed the field as soon as the land can be got into good condition.

Grass and weeds are alfalfa's worst enemies, therefore alfalfa should be seeded down after a hoed crop. A study of alfalfa growing in the Province of Quebec points strongly to the conclusion that lack of proper preparation of the soil is responsible for more depleted stands than is lack of fertility. This is evidenced by the fact that the majority of alfalfa fields are almost choked out by blue grass and couch grass at the end of the second year.

Alfalfa is a delicate plant in the early stages of its growth, therefore the seed bed must be especially well prepared—



fine on top and firm below is the condition sought. When these conditions are complied with, alfalfa will make a remarkably quick germination and early growth providing moisture and temperature conditions are favorable.

In preparing soil for alfalfa, plow the land to a good depth in the fall. In early

thoroughly incorporated with the soil by means of the disc cultivator. Composted manure is much to be preferred to green manure as it keeps the soil less open and is also less liable to give trouble from weeds.

If sown broadcast, twenty to twenty-five pounds of seed to the acre will be

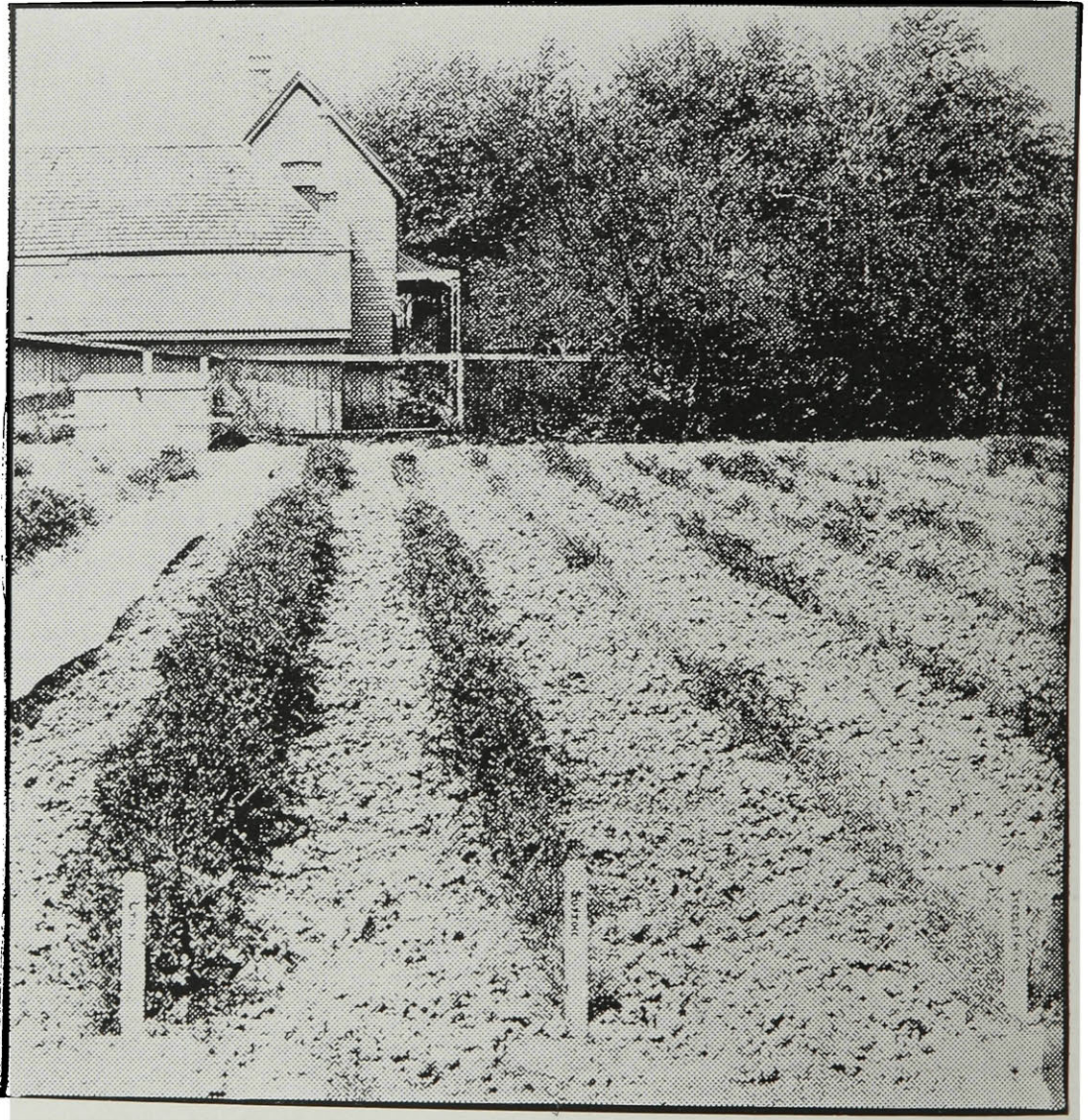


Fig. 1.—Grimm Alfalfa.

spring give the field an occasional stroke with the harrow to compact the lower layers of soil, prevent the formation of a crust, kill germinating weeds and conserve moisture.

If barnyard manure is applied during the winter, it should be turned under with a light furrow in the spring or

required; if sown in drills thirty inches apart, four to five pounds of seed will be ample.

In general practice it is not advisable to sow early. While good stands are not infrequently secured in the fall wheat districts of Ontario by seeding alfalfa on winter wheat land in early spring just



before the frost comes out, experiments at Ste. Anne go to show that, in a normal season, best results will be obtained in Quebec by seeding about the middle of May. In a backward season, earlier seedings are apt to be injured by excessive moisture or by late spring frosts; later seedings, in a very dry year, are likely to germinate unevenly on account of insufficient soil moisture. When alfalfa is sown in rows it may safely be seeded as late as the middle of June as the growth in the cultivated drills is much more rapid than in the uncultivated broadcast fields.

At Macdonald College, on well prepared land, late summer seeding has been practiced with excellent results; but on land in poor heart, this practice has given the lowest returns of any of the many methods tried. The rates of seeding are the same as on the spring-sown land. Early August has proved the most satisfactory time for late summer sowing. One decided advantage in favor of seeding at this time, on reasonably clean land, is that one is never troubled with annual weeds. Nor does one have to wait a year for returns, as the usual number of cuttings of hay can be taken the next year. Again, if the land intended for alfalfa is not in a hoed crop, it may be cleaned by summer fallowing before seeding in August; or, if well composted manure cannot be had in sufficient quantity properly to enrich the land, field peas may be sown early in the season and turned under in the early podding stage. Alfalfa, seeded in August, is always sown alone, never with a nurse crop.

If sown in the spring, alfalfa should rarely, if ever, be seeded alone. Success beardless barley, sown at the rate of three pecks to the acre, makes the best nurse crop. This barley will hold weeds in check, protect the young alfalfa plants

from the direct rays of the sun, and will yield a fair return in grain without injuring the alfalfa, providing it is cut as soon as ripe and the shocks are not allowed to stand any considerable length of time on the land. The Success variety of barley is preferable to any other kind of cereal as a nurse crop for alfalfa because it rarely lodges, does not shade the young plants too much, makes its demands upon soil moisture early in the season, confines its root system to the upper layers of the soil and so does not enter into as keen competition with the alfalfa for moisture as does wheat or oats. Moreover, being one of our earliest ripening grains, it is harvested early and so gives the alfalfa plants every facility for the development of a good root and top growth before winter.

On the Cereal Department inoculation has not, in all cases, increased the yield or vigor of the resulting crop. This can easily be accounted for by the fact that the necessary bacteria are already present in considerable numbers. On land where alfalfa or sweet clover (*Melilotus alba*) has not previously been grown, always inoculate the seed. Several methods have been tested, but for ease and effectiveness of treatment, coupled with low cost, the nitro-culture put up by the Bacteriology Departments of our Agricultural Colleges at Guelph and Ste. Anne is to be recommended. In farm practice inoculation should always be employed and seed so treated should be harrowed in as soon as sown.

The first crop should be cut for hay as soon as one-twentieth of the plants are in bloom, or if the season is cold or wet and blossoming is delayed, cut as soon as the new shoots appear at the crown. This point calls for special emphasis, as many inexperienced alfalfa growers wait so long for the bloom to appear that they lose a cutting of hay as a result. Nor is

this the most serious loss. If the cutting of the first crop is delayed, the young shoots, which later would have produced the second crop, are destroyed at the time of first cutting, with the result that the vitality of the plants is seriously weakened. Impaired vitality, due to ill-timed cutting, accounts, in part, for the fact that in many alfalfa fields the second crop turns a reddish color, loses

Whenever this action is taken promptly, a new set of shoots will appear almost immediately.

When blue grass or couch grass gets a foothold, the disc cultivator has been found a most valuable implement in holding the grass in check and in thickening the stand of alfalfa. On all, except very loose soils, the discs should be set to cut. This apparently drastic

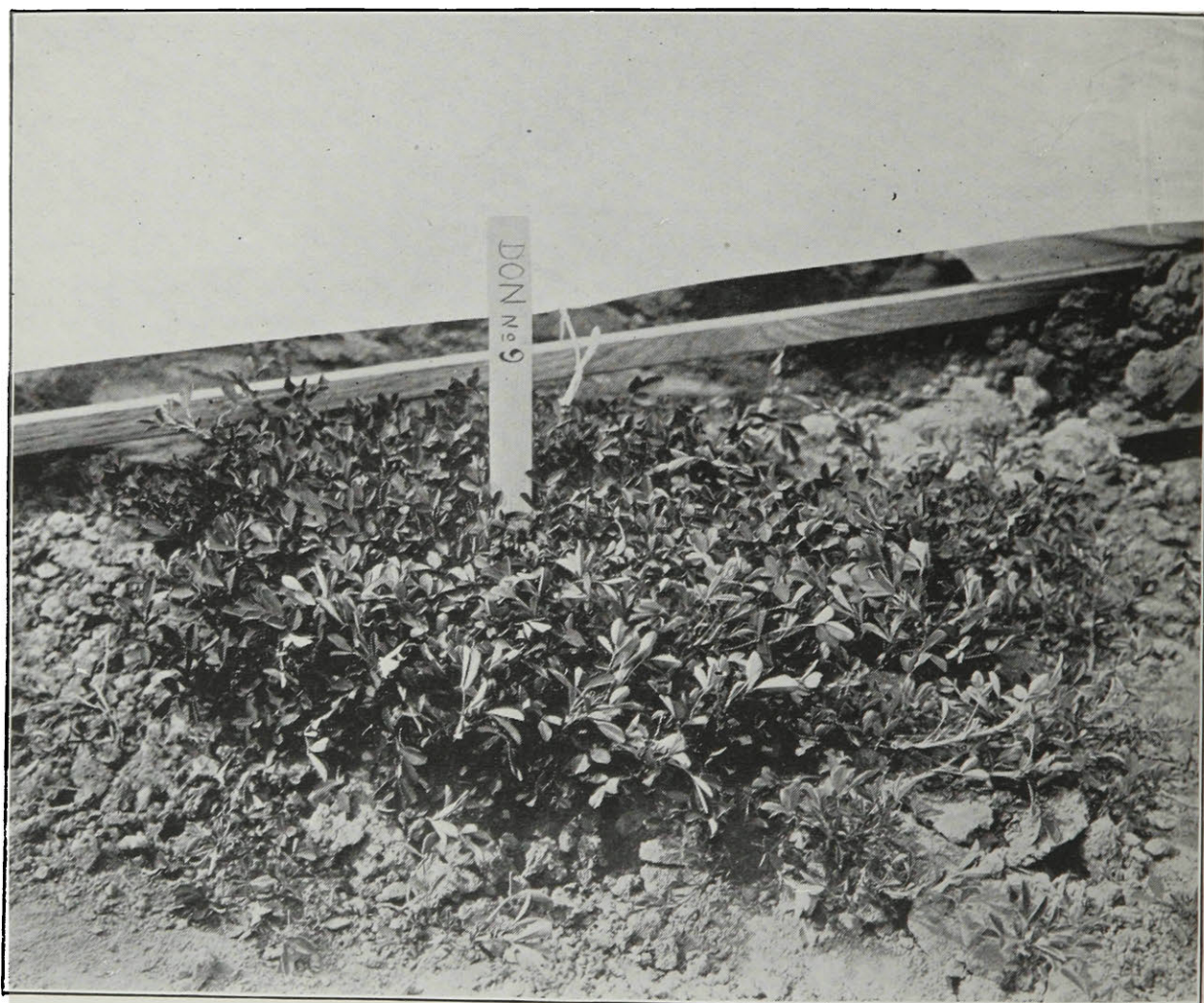


Fig. 2 — An Individual Plant of the Don Variety.

the greater part of its leaves and becomes tough and woody instead of developing normally. Losses from the attacks of leaf spot will also be materially lessened by prompt cutting. If, however, leaf spot does seriously check the development of the plants, it is best to cut the crop at once even if the quantity of hay cut is too small to harvest.

treatment has been productive of excellent results, especially on old alfalfa sod where blue grass began to come where the stand of alfalfa had been reduced by winter killing. Whenever practiced, discing should be done immediately after the hay has been removed.

Experiments in growing alfalfa seed have been conducted on a small scale



for several years. Seed is obtained from the second cutting. Results thus far indicate the superiority of drilling over broadcasting for seed production.

Always allow the last crop of the season, no matter how heavy, to freeze down. While valuable as hay, it is much

whether some substitute could not be found which would enable us to harvest the last crop of the season without incurring the risk of having the plants winter kil. Thus far, no system of management has been discovered which will compare at all favourably with the

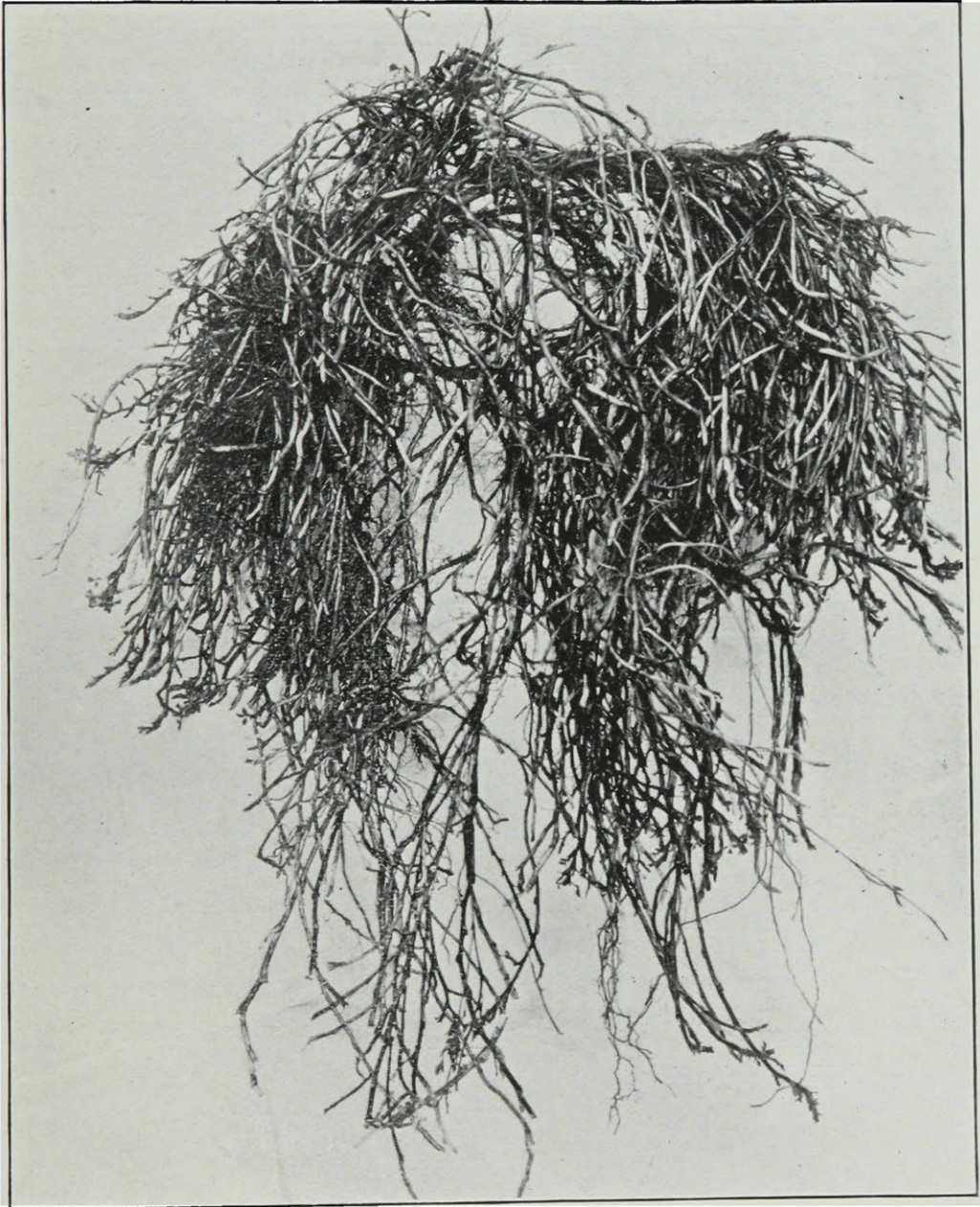


Fig. 3.—Roots and Rootstocks Removed from Don Alfalfa.

more valuable as a protection to the crowns and roots. There is no danger from this aftermath smothering the crop out, as sometimes occurs in heavy stands of clover, as the alfalfa will not freeze down and form a dense mat. A large number of experiments have been conducted with a view to learning

practice of allowing the last crop to freeze down and form a mulch for winter protection

#### CULTURAL WORK WITH ALFALFA IN THE PROVINCE OF QUEBEC.

In addition to the work at the College, considerable illustration field work with



alfalfa has been carried on in four widely separated counties in the Province of Quebec in co-operation with the Committee of Lands in the Commission of Conservation. The results of this work, which has now been carried on for three years on two acre blocks on each of eleven farms, while not so gratifying as

Department. Eighty-eight of the most promising hardy strains obtainable were brought together from all parts of the world where soil and climatic conditions closely approximate our own. Each variety was sown on two distinct types of soil. All came through the first winter without any appreciable loss

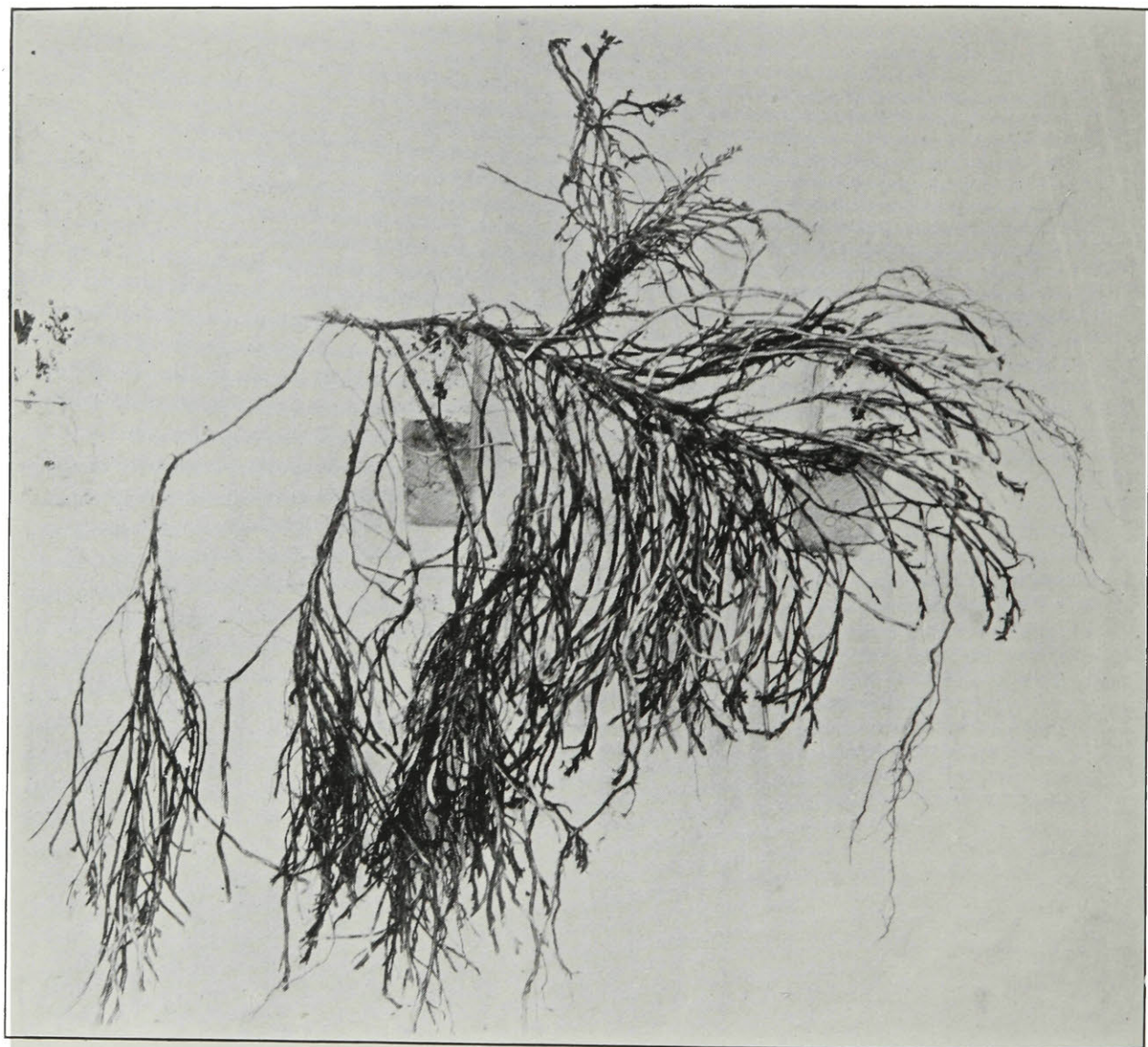


Fig. 4.—A Single Lateral Root Showing Numerous Rootstalls.

those obtained at the College, nevertheless give large warrant for ultimate success.

#### SELECTION AND BREEDING WORK WITH ALFALFA AT MACDONALD COLLEGE.

In the spring of 1911 a comprehensive study of varieties and strains of alfalfas was begun by the Cereal Husbandry

through freezing. The winter of 1912-13, however, was an unusually severe one. All clovers on the Department—common, mammoth and alsike—were completely killed. The loss among the eighty-eight alfalfas, while heavy, was not nearly so serious, and in no case was it complete. While many of the alfalfas under test suffered comparatively little,

the medias and falcatas proved the most hardy. Of the medias in commerce, Grimm and certain strains of Grimm proved most resistant to our winter conditions. Minnesota Stocks No. 5 and No. 8 proved especially so, and as these strains combine all the other excellencies of the original Grimm stock, over two thousand individual plants of these selections were propagated in the greenhouse and later were transplanted at stated distances in the field for breeding work.

While selection and breeding work has been vigorously pushed with alfalfas adapted primarily for hay, considerable attention has also been given to the problem of producing a hardy pasture alfalfa. From Prof. N. E. Hansen we obtained, in the spring of 1911, five hundred and fifty year old plants, representing six varieties, collected by him on his third trip of agricultural exploration in Northern Europe and Asia. One of the new importations, a variety named Don (*Medicago falcata*), contained one plant, now known as Quebec No. 1 alfalfa, which, when three years old, had developed such a dense mass of underground rootstalks that 125 healthy root cuttings were obtained from less than half of the plant. These have been multiplied in the greenhouse and in the field and a sufficient number of plants are now available for test at the different Agricultural Colleges and Experimental Farms in Canada.

As a photograph of the above-ground part of plant No. 1 was not secured before the root cuttings were taken, Fig. 2, showing plant No. 9, which resembles No. 1 quite closely in stem and leaf, has been inserted to give an idea of the general appearance and habit of growth of plant No. 1 before the cuttings were taken.

Fig. No. 3 illustrates well the dense mass of roots and underground root-

stalks which constituted less than half the number produced by the remarkable plant from which Quebec No. 1 alfalfa was originated; while Fig. 4 gives some idea of the enormous development of rootstalks on a single lateral root borne by the parent plant.

As the original variety, from which this individual plant selection was made, has come through two winters without the loss of a single plant, and as its habit of growth is such as to give great promise of its ability to compete successfully with grass in an ordinary pasture, Quebec No. 1 alfalfa is now being sent out to other Agricultural Colleges and to the Experimental Farms in the hope that it will make a valuable contribution to our list of pasture crops, especially on land which does not lend itself readily to rotation.

#### GRIM ALFALFA.

Fig. 1. The row on the left labelled "Lyman" is the Grimm variety and shows clearly the ability of the alfalfa to withstand severe winter conditions much better than the other commercial sorts shown on the right.

#### AN INDIVIDUAL PLANT OF THE DON VARIETY.

Fig. 2. As the symmetry of the parent plant from which Quebec No. 1 alfalfa was originated was marred by the removal of 125 root cuttings this illustration of plant No. 9 is inserted to show the general habit of growth of the parent plant.

#### ROOTS AND ROOTSTALKS REMOVED FROM DON ALFALFA NUMBER ONE.

Fig. 3. This illustrates well the dense mass of roots and underground rootstalks which constituted less than half of the number produced by the remarkable plant from which Quebec No. 1 alfalfa was originated.

#### A SINGLE LATERAL ROOT SHOWING NUMEROUS ROOTSTALKS.

Fig. 4. This illustration gives some idea of the enormous development of rootstalks on a single lateral root borne by the parent plant from which Quebec No. 1 alfalfa was originated.

## Clay: Its Properties and Products.



NO industry exercises a greater fascination over those engaged in it than does the various branches of clay-working; no other substance offers so many problems of such absorbing interest to the artist, the manufacturer, the chemist, the geologist, and the agriculturist. For as raw material for the trade, and in the form of bricks, tiles, terra cotta and cement, and as the basis of our agricultural soils, clays are among the most important rock products.

Wherever clay is found there we find the ceramic art. Men became potters of a sort just as they became hunters, shepherds, or carpenters. They spread the moist material, removed the stones, beat it with their hands, or used a stick, shaped it by using the flattened side of a boulder as a support so that they could turn it about with their feet, and lo! they had a "potter's wheel," not an instrument brought down from Heaven as related by the Chinese myth, but invented by the brain and hand of the toiler.

The chief uses of clay have been recognized since the earliest periods of civilization, but it remained for the present generation to develop and utilize for fuel those accumulations of natural gas found in the clay-deposits of former ages, and to discover a new building material in the cementary properties of clay, Portland Cement, the output of which in Canada for the year 1912 was \$9,106,000.

Clay occurs in deposits of almost all geological periods. It comprises the largest known deposit to-day, viz.: ocean ooze, a deposit of unknown depth at the bottom of the ocean, estimated to cover 10,000,000 square miles.

When moist, clay emits a characteristic odor. Being a rock, its composition is variable. Pure clay substance is an alumino-silicic acid, the salts of which are the zeolites and related compounds; thus true clay is a tetra-basic alumino-silicic acid and is analogous to colloidal silica which has been formed by the decomposition of a silicate by means of water and an acid.

The most obvious feature in a piece of moist clay is its plasticity or ability to alter its shape when kneaded and put under slight pressure, and to retain this new shape after the pressure has been removed.

Water is an essential constituent of all unburned clays. It is found in two conditions, (a) as moisture or mechanically mixed with the clay particles, and (b) in a state of chemical combination. This combined water is a function of the true clay in the material and is unaffected until the temperature is raised to upwards of 600 deg. C., when it is driven off and all potential plasticity destroyed. This fact accounts for the vitrification so essential to the manufacture of pottery and porcelain ware.

The binding power of clay has been shown to be due not alone to cohesion but is also closely associated with the colloidal nature of plastic clays. Those which are highly colloidal, highly plastic, and possessing great binding power are called "fat" clays. No clay is entirely colloidal, or it would be elastic and not plastic. The relative proportions of the colloidal material and the sizes of the non-plastic grains exercise an important influence on clay characteristics—absorption, texture, extensibility, binding power, tensile strength and molecular constitution.

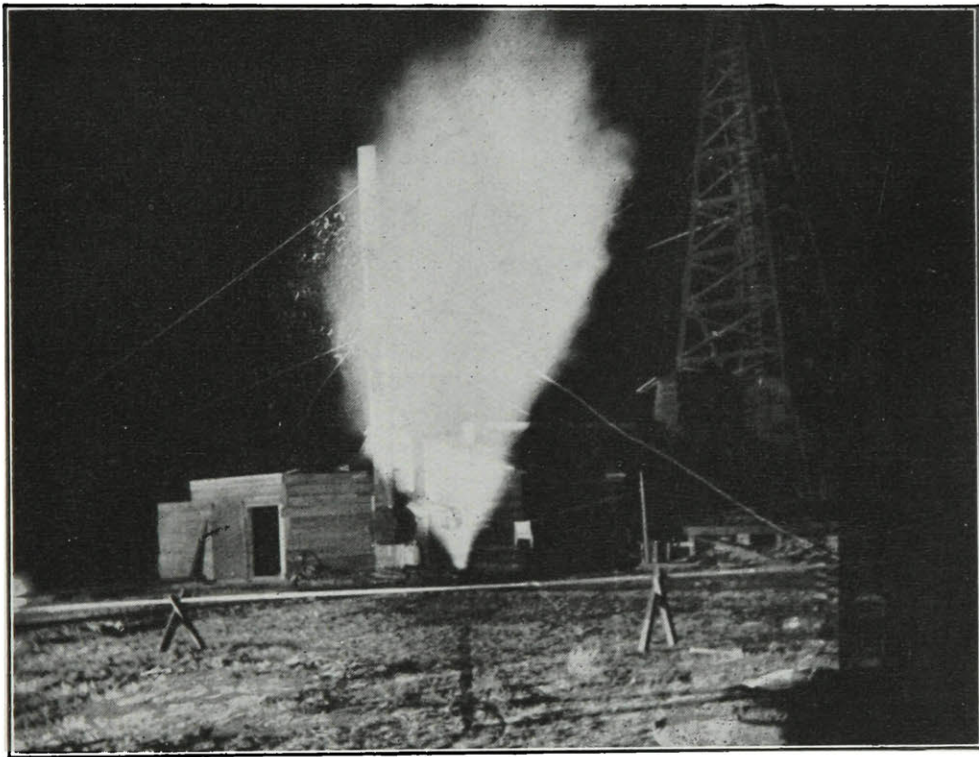
The fusibility of clay is a character-



istic which has been very imperfectly studied. Clay, not being a homogeneous material, varies greatly in its melting point: thus a clay may show signs of fusion at  $1100^{\circ}\text{C}$ ., but may be heated some hours at  $1800^{\circ}\text{C}$ . and yet not be completely melted. In practice the clay to be tested is made into a small tetrahedron and heated slowly until it bends over and the point of the test piece is almost on a level with the base. This is the principle of the Seger Cones—graduated standard mixtures. The re-

stiff again by adding sufficient acid to neutralize the alkali previously used. This method is used in the process of making sanitary ware and crucibles for glass making, the flux being poured into moulds and then hardened by the addition of a salt solution.

The Chinese, who were the greatest race of potters the world has ever seen, were the first to discover that at a sufficiently high temperature pottery could be glazed with powdered feldspathic rock mixed with lime. Their



Gas Well at Night.

fractoriness of fire-clays corresponds to Cone 26, the recognized minimum in Germany for fire-clays.

The effect of adding water to a dry clay is curious. At first the particles in contact with the water become sticky and plastic: if more be added, the particles will be separated so widely from each other that they lose their cohesion and become, instead of a plastic mass, a liquid of cream-like consistency.

Alkalies are particularly powerful in this respect, but the clay may be rendered

wares, which were white and translucent (Porcelain), were highly prized in China, Japan, and Persia, and did not appear in the West until 1171, when Saladin sent 40 pieces to the Sultan of Damascus. From this time on followed its introduction into Europe, where it excited great admiration and eventually found its way into the treasuries of European Princes. The "Archbishop Warman Cup," at New Collen, Oxford, was the first specimen to reach England that we can now produce. It is a "celadon"

bowl with a silver gilt mount, of the time of Henry VIII.

English china-ware is produced from a mixture of equal parts of bone-ash, china-clay, and cornish-stone. Glazing is done by dipping the article into "glaze" before burning. The mottled appearance of Rockingham ware is produced by sprinkling color on with a brush after the first burning, and the articles again fired. The molecular constitution of clay is peculiar, and it is to this that plasticity is due. An examination of a clay solution shows that the particles are composed of minute crystalline plates, together with much apparently amorphous materials, which may be detected by passing a beam of light through the solution, showing a "halo"

about each particle. These are colloids, and may, under suitable conditions, crystallize into rhombic plates of Kaolinite, the name given to the crystalline material, but in the amorphous state it bears the name Clayite. These two substances having the same chemical composition, it is most probable that they are the same substance in different physical states.

With the present rapid advances being made in physical chemistry, the colloidal nature and structure of the clay molecule will soon be, if not already, an unravelled puzzle to the scientific world.

O. C. HICKS, Agr., 15.

Macdonald College.



Mr. Jones amongst his "Friends."





H. Williamson.  
A. S. Taylor.  
C. Russell.



L. C. McQuat.  
J. H. King.  
H. I. Evans.



J. H. McCormick.  
F. Y. Presley.  
E. Grove White.



R. E. McKechnie.  
E. M. Ricker, Pres.,  
W. Sadler.

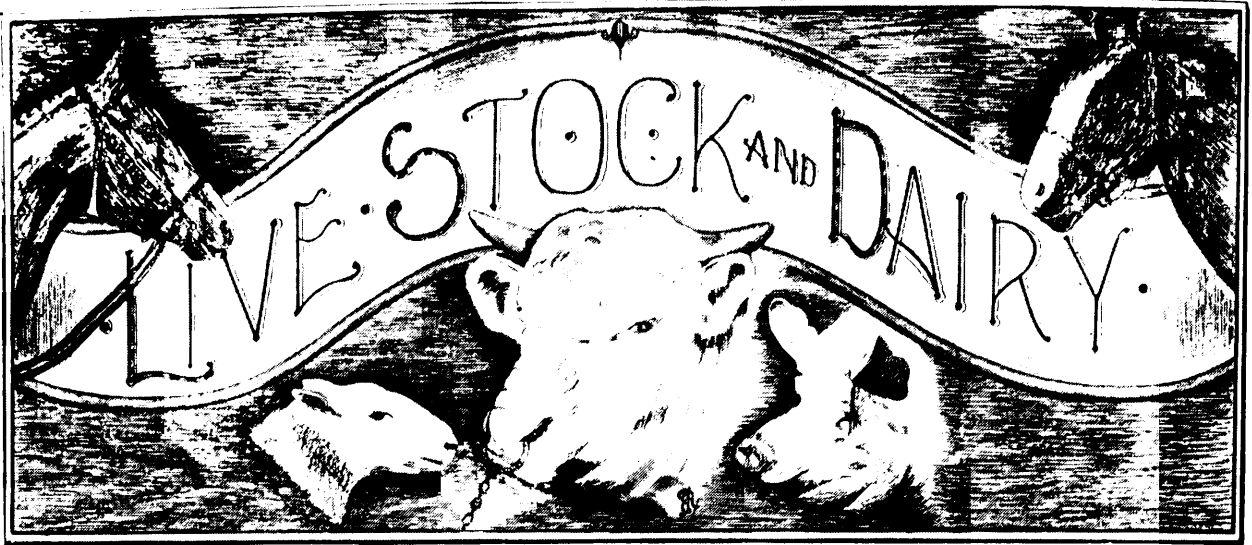


H. D. Mitchell.  
J. E. McQuat,  
L. J. Westbrook.



Top Row—C. E. Chute.  
Second Row—G. C. Boyce.  
Bottom Row—O. Hicks.

JUNIORS.



## A Rising Profession.

By A. SAVAGE, B. S. A., '11.



PROBABLY when the first domestic animal took sick, the practice of veterinary medicine began, and, while we would not willingly discredit the ability of the earliest practitioner, there have been sick animals ever since. Moreover, as the first animal to undergo domestication was doubtless lame at the time—poor brute!—we are nearly safe in saying that the profession of which we speak is, in some form or other, as old as agriculture itself.

Human ailments in the early days were ministered to by the priests who, shrouding their proceedings with mystery, cared for both body and soul until the treatment of mere mortal ills became a matter too complicated for their full consideration, and the healing art grew into a specialty. Thus came our first physicians.

The diseases of animals, however, have never had any religious affiliation but have been a hard headed item for the farmer's profit and loss account. They affect creatures of very different anatomical construction from humans and are in many cases peculiar to live stock,

both of which reasons have necessitated such particular and comparative study that, while all Medicine is one, veterinary medicine and surgery occupy a distinct field of their own, which, be it noted, verges unfenced on either side into the agricultural pasture and the human hospital.

In Canada there are unfortunately very diverse views regarding veterinarians in general, and as in other walks of life, many kinds of vets. Farthest removed from their logical occupation are the race-track and quack types who for a consideration will disguise heaves, perform illegitimate neurectomies for the hiding of lameness, "dope" running horses and tubercular cows, "plug" roarers, and perform other acts the ethics of which place them on a par with the lowest of horse dealers. We should add in parenthesis for the uninitiated that there is no pursuit of wealth offering more room for expert liars than this: in fact it is here that the most accomplished ones are usually found.

Almost as far from the most useful position but happily in the opposite direction are the pathologists and scien-

tific investigators. These, however, are a necessity, for the unsolved problems in no branch of medicine are so many and so large as those pertaining to outbreaks of apparently new diseases of live stock. Only men of special training can determine the relationship between man and animals of numerous and obscure affections, study their causes and indicate the remedies. Indeed civilization itself would be in a bad way were it not for Koch, Pasteur, Negri, Bang, Loeffler and a host of other toilers who, by long and painstaking research, have done more for the protection of man and beast than is generally believable. Nor is the field of surgery, from a comparative standpoint, so largely impracticable as that relative to the large animals. The lives, energy, and ability of many capable men are urgently needed before these paths will be finally cleared. And where are the men?

Of milk, meat, and sanitary inspectors we need hardly speak. Suffice to say that the public at large is more protected by their work than it realizes, and that their daily routine is not always the most pleasant nor the most lucrative one imaginable. Still the positions must be filled.

Finally, there is the practitioner. It is he who makes the profession; he too it is that you must judge not only by his knowledge and results but also by his intentions. He may be a "natural-born horse-doctor," who through natural ability, study and association with others of his calling has become proficient, or a college bred man. We prefer the latter, of course, but at the moment shall not plead for those who, organized, can protect themselves.

The man without the live stock interests of his community at heart is careless perhaps, inefficient in any case. Because his patients are not excessively valuable as individuals he fails to use

his utmost skill; he treats rather than prevents; he gives little advice; his fee is irrespective of the service rendered;—he is mercenary. Throw him out.

The veterinarian there is, however, who above all else is a man and a citizen. He is vitally involved in the welfare of all the stock in his section be it poultry or stallions, and he has an eye for a horse. No weather is too bad, or no call too far for him. You see him eagerly driving through snow and slush for a case of colic or getting up hurriedly in the midnight hours on an obstetrical expedition. He is up-to-date in his therapeutics and cheerful with his advice. His judgment is sound, honesty unquestionable and his skill pushed to the utmost to save a useful life and prevent unnecessary enzootics. He is as respected as the village clergyman and notary. loved only as his brother the doctor. He is such a man as deserves in Heaven a white winged Pegasus with hoofs of fire!

A natural result of these many kinds of veterinaries has been that the treatment accorded the profession has not been as uniformly respectful and, in many instances, as fair as it might have been. Physicians for instance as a class are eminently respected, so are clergymen. It has long been the farmer's complaint that his calling is not accorded the position it deserves by reason of its fundamental importance, yet he in turn is not altogether without blame. It is not within our scope either to enter into a discussion of class prejudice or to emphasize the inconsistencies of every occupation, but we cannot pass the opportunity without saying that wilful blindness on the part of stock owners coupled with a most profound and unfounded conceit in their own ability has too often meant the calling of a veterinarian at the eleventh hour as much as to say, "Now, perform your miracle." In



these frequent instances the result is mutual dissatisfaction—or else a miracle indeed.

A little thought on the subject will suggest two timely remedies for the discrepancies at present existing in the profession. The setting of definite standards relative to the higher education of veterinarians in this country, standards at least approaching those required in England, France and Germany, would, if enforced, raise the efficiency and social status of our practitioners within one generation. All of them do not need it, but we are of the opinion that the diversity of types now found could be replaced by a single more reliable one by this means. Proper legislation for the exclusion of incompetents—no matter what their source—would complete what we desire. Public opinion will bring both of these to pass sooner or later, and in so doing shall find that, regarding the veterinary surgeon,

it too has happily changed. May it be soon.

The time is coming when the ever increasing value of farm stock and the inevitable agricultural co-operation will probably necessitate here as in certain western sections the employment of syndicate veterinarians of the last mentioned type on a salaried basis, whose duties shall be therapeutic, advisory and prophylactic and who shall constitute the last local court in many animal husbandry matters. We would even suggest the adoption of the Chinese system modified, by which so much per head per annum would be paid for all well animals, a pro-rata deduction being made for every day's illness. However, until that time does arrive protect the good veterinarian and yourself by proper legislation, encourage his higher education, and watch the profession rise, "For the night is far spent and the day is at hand."

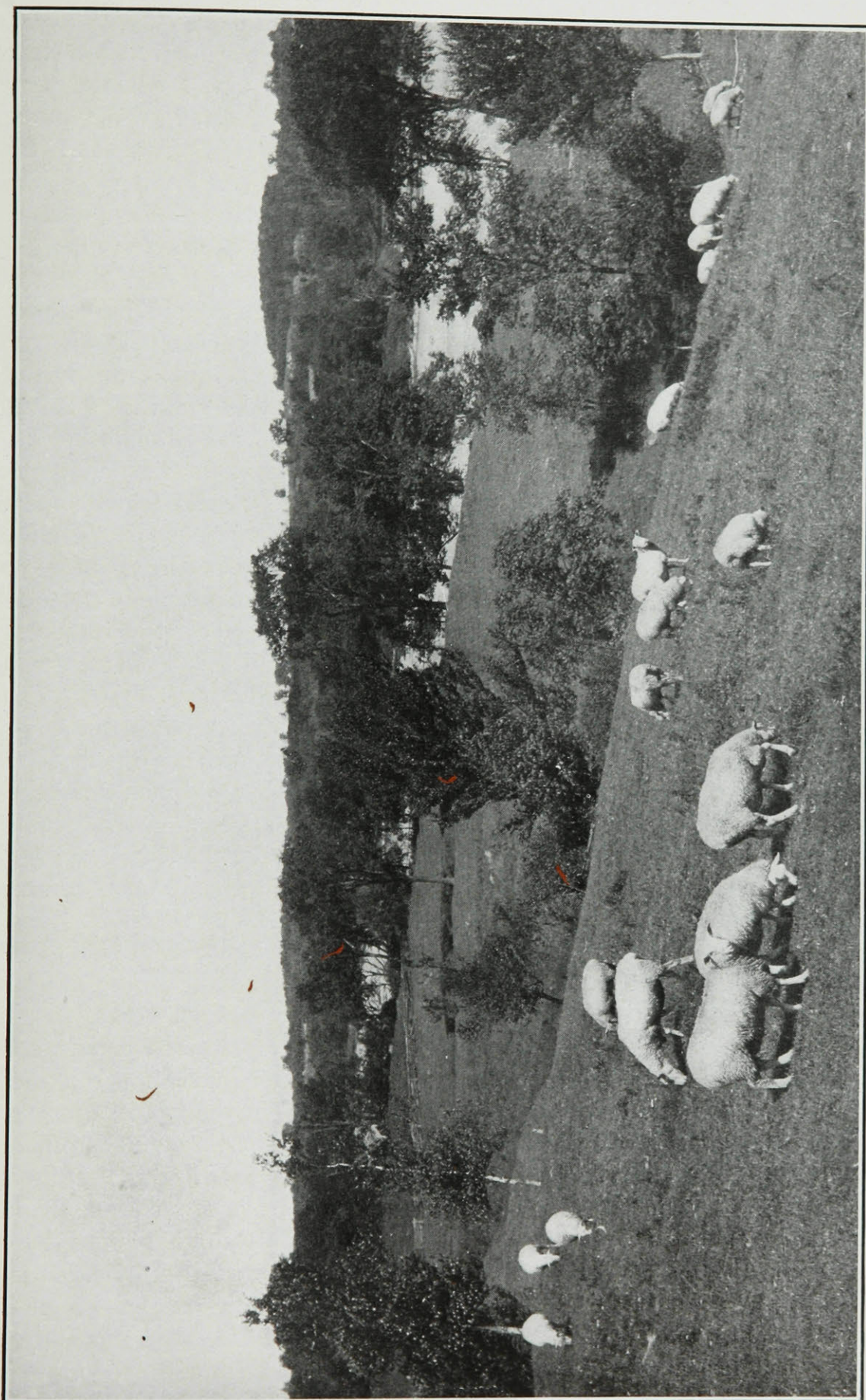
## Wool and Mutton in Quebec.



WITHOUT going into history, it may be stated that at one time it was not unusual to find whole districts in this province where practically every farmer possessed at least a small flock of sheep. But times have changed and a serious decline in the industry is apparent. That this situation is greatly to be regretted is now very generally acknowledged. The evident decline is the more to be deplored when we consider the splendid markets which are available in Montreal and in the Eastern States, to say nothing of that which is possible through the building up of an export trade with Great Britain. That

Montreal is but poorly supplied with good lamb and mutton is evident to any one who knows anything of the markets of the city, as also by the prices which are asked and paid for a really high-class article.

Many and various are the reasons advanced for the falling off of sheep-keeping. In the days of primitive agriculture the system of home economics rendered the sheep to furnish clothing as necessary as the cow to yield milk. As the necessity for home-grown clothing passed away only those farmers possessing the shepherding instinct or the keen commercial spirit retained their flocks. Breeders of sheep have also suffered from



Making Profit on Waste Land in Quebec.



the ravages of dogs—and this together with the need for better fences has discouraged many farmens from keeping sheep. Mutton and wool prices fell, and sheep keeping conducted in the old haphazard way on many farms, yielded very little revenue. However, the good sheep man did not find it necessary to abandon sheep-keeping, and these men are reaping to-day the reward of good prices and incidentally cleaner and richer farms. To these reasons may be added the enormous growth of the dairy and the hog industry, also a lack of knowledge on the part of the farmers regarding sheep husbandry generally. This last fact is, in my opinion, one of the greatest reasons at the botton of the decline in sheep raising. I have in mind a certain district where inbreeding had been practised very closely for years—with the result that their sheep became run out in size, bone, wool and flesh. These sheep brought a very low price and they would not have been sold at all if the demand had not been in excess of the supply. The farmers in this district became displeased, as they were making nothing, and consequently sold off all their flocks—no doubt there were many other districts in this province that have experienced the same misfortune. It is impossible to enumerate all the factors which have entered into the decline of the sheep industry in this province and to calculate the exact share each particular factor has played. The truth of the matter is, however, that we are not supplying enough mutton for home consumption. In addition to home consumption the Western Provinces, which are rapidly inaugurating a system of mixed farming, will soon require large numbers of breeding stock. Quebec should then take her place with Ontario in the meeting of these requirements. The prospect is indeed a bright one.

No province has a better outlook as regards this industry. We have much rough land that is admirably adapted to sheep-raising. Local demand for good mutton is increasing, while our close proximity to New York and Boston ensures a market at all times of the year. We have an export trade almost at our door, and all we need is faith in the business, coupled with a careful study and compliance with its requirements.

An educational campaign in the interests of this important work has already been undertaken. The College is doing good work through her district demonstrators, and the Winter Short Courses have been of great value in awakening the farmers to the possibilities of this work. A new feature of the work undertaken by the College is the Extension Branch—this without doubt is one of the quickest and surest ways of improving conditions.

The farmer is not averse to the keeping of sheep, but he lacks information regarding methods and management; thus he does not make as much out of the business as is possible.

The practice which is most common at the present day is to sell the lambs in August or September. It is at this time of the year that the prices are lowest, running about five cents a pound. Through this practice the farmer loses quite a lot. In November and December, also later on in the winter months, the prices are higher, ranging from six to eight cents. This is quite a difference, and if the farmer would feed the lambs over he would be amply repaid by the increase in weight and price. It is possible by pasturing on rape or alfalfa in the fall to increase the weight materially, and by holding them over to take advantage of the higher prices. If the lambs are not finished for the Christmas trade it is advisable to keep them over

longer. As the rape or alfalfa has been the chief fall diet, these may be gradually substituted by roots. By careful feeding with hay, roots and grain, they will thrive well and put on weight. Lambs weighing 90 ponuds on October 1st will weight about 110 pounds at Christmas and if kept over until the end of January will weigh about 120 pounds. The practice now in vogue of selling off the great bulk of lambs in the autumn leaves the market very bare of freshly-killed mutton during the winter and spring months, so that the price of good yearling mutton is always at a premium at that season.

Another important feature is the wool end of the sheep industry. The wool industry is an important one and one which should receive our attention. To-day we are importing wool from other countries, in the first place because we do not produce enough, and secondly because our wool is not put up in suitable condition for the better class of work done by the manufacturer. In 1912 Canada imported \$1,555,395 worth of wool. Now there should be no excuse for this, because Canada is able to produce more wool of certain kinds than domestic manufacturers will ever require, and with a little organization and teaching, our farmers should be able to put up their wool in such a condition that it would command the best market value.

Our farmers must be educated in growing and handling their wool properly until they are able to turn out as good a product as wool-growers in other countries. His wool will then be worth

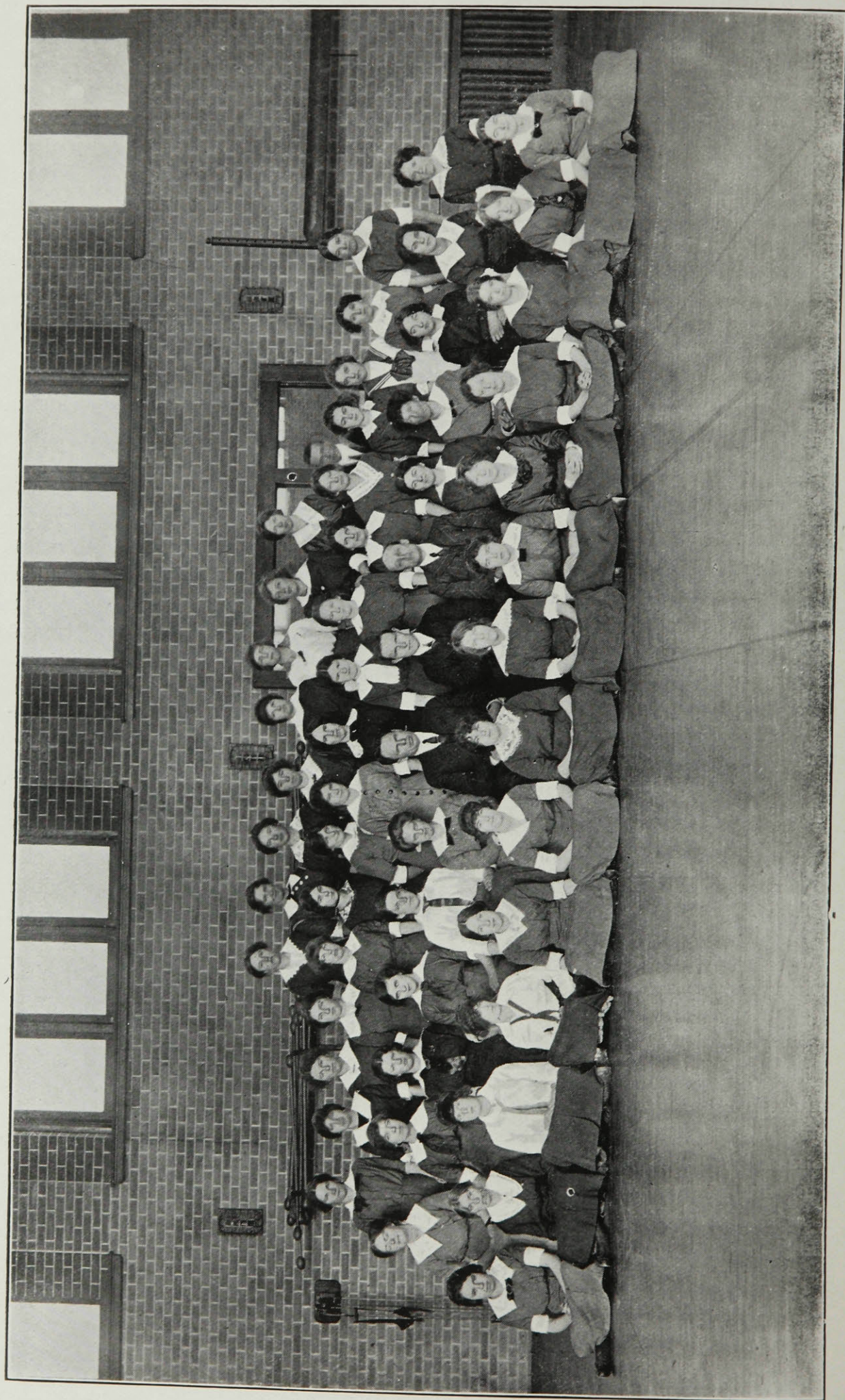
the full market price, either at home or abroad. When at the Chicago International this winter I was somewhat surprised at the exhibit of wool there. Hitherto I had no idea that there were so many grades and classes of wool and wool products. There the wool is seen in all its stages from the raw state until it is made into cloth. The fleeces of the different breeds are there for comparison, showing the relative merits of one over the other. It is a study in itself and a great deal of time could be spent on this work. If it could be made possible either through the Government or our Colleges to provide wool exhibits at some of our most important county fairs, I think it would be an excellent means of enlightening farmers on all matters connected with wool-production and market requirements. These exhibits should be in charge of demonstrators fully qualified to give farmers full information regarding the care of the fleece on the sheep's back, on the shearing floor and up to the time it leaves for the market.

A great advance in the sheep industry is bound to take place sooner or later and if the Province of Quebec gets a good start along right lines she can develop an industry much faster than many people imagine. The Government can help a great deal by making possible a rigorous enforcement of regulations for the protection of the farmer from the ravages of dogs. By education, organization and co-operation among the farmers an industry of amazing proportions will no doubt be developed.

L. C. McOUAT, Agr., '15.

---





TEACHERS—ELEMENTARY CLASS.





## Fruit Bud Formation on the Apple Tree.

By Prof. T. G. BUNTING, Professor of Horticulture.



ANY orchardists expect a crop of apples only every other year, believing it to be the habit of their trees to produce one crop in two years. Others think that after a tree produces a full crop it is not able to produce a crop in the succeeding year. Again, the opinion is expressed that the seasons are responsible for the biennial bearing habit of the tree. Fruit growers as a class have not given enough attention to this question of fruit bud formation, although they may be well informed along other lines of good orchard practice. Only recently in discussing with a fruit grower last year's

epidemic of tent caterpillars, he made the statement that as he had no apples in his orchard, he did not think it necessary to spray to protect the foliage of his trees from the caterpillars, consequently the trees were entirely defoliated, and on enquiry he said he expected a crop of apples this year. There are many fruit growers who dismiss this subject in the same manner, with the result that their orchards are not as productive as they should be.

The following table taken from the report of the Experimental Farms for 1911 will throw some light on the bearing habits of the individual trees:—

*McMahon—Planted 1888. Yield in Gallons per year.*

Tree	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	Total 13 yrs.
1	62.0	.0	83.0	2.0	147.0	1.5	141.0	40.0	124.0	11.0	142.0	2.5	133.0	889
2	32.0	29.0	49.0	18.0	55.0	63.5	56.0	108.0	9.0	84.0	12.0	121.5	2.0	639
3	25.0	4.5	46.0	0.5	69.5	43.5	72.0	96.0	75.0	52.0	81.0	78.0	97.0	739

*Pattens—Planted 1892. Yield in Gallons per year.*

4	27.0	2.0	35.0	1.5	71.0	15.0	84.0	34.0	92.0	3.0	138.0	.0	95.0	597
5	2.0	31.0	1.5	49.5	22.0	67.0	26.0	69.0	0.5	71.0	6.0	70.0	.0	445
6	13.0	0.0	6.5	.0	12.0	15.0	45.0	45.0	13.0	48.0	12.0	52.0	30.0	291

In this table two varieties of apples are under consideration. These six different trees, for which records are given, are in the same orchard and under exactly the same conditions, so far as it is possible to have trees, and we would expect them to behave very similarly.

Trees No. 1, 2, 4 and 5 have a tendency to produce a medium or large crop of fruit one year and no crop, or a very light crop the next year, as they are biennial bearers. The peculiar thing about it is that one tree will produce

different trees set is a fair indication of the ensuing crop. It is necessary to look further to discover the cause of this biennial bearing habit and for this reason let us trace the history of the apple from the beginning of the bud to the fruit.

In the simplest case that we can take we would have briefly; In 1912, we would have new terminal growth developing, and in the axils of the leaves of this growth small leaf buds would form; the following year, 1910, these small leaf



Spraying—An Important Factor in Development of Fruit Buds.

its crop in one year, while an adjoining tree of the same variety, growing under the same conditions, will be without a crop that year and the following year it will produce its crop, while the cropper of the previous year will have no fruit. Apparently in these cases the weather conditions at the blooming season was not an important factor in determining the crop, for the trees of one variety would all bloom at the same time, but we find that the amount of bloom these

buds on growing would increase in size and elongate into fruit spurs and during that season may be transformed into a fruit bud, provided the bud received sufficient nourishment and was not forced into strong twig growth, and then in 1914 this fruit bud on blooming and being properly pollinated may develop into a good apple. Frequently the leaf bud may require two or more years before it may be developed into a fruit bud, but always a fruit bud is a trans-

formed leaf bud. Therefore, we see that the crop of one year is dependent on the fruit bud formation of the previous year. In the table given, tree No. 1 and No. 2 are fairly representative of the biennial bearing trees. One bearing one year and the other bearing the following year. A complete record of these trees would show that during the years of no crop or light crop there was no bloom, or comparatively little bloom. Therefore we see that during the year the trees were producing a full crop, no fruit buds were formed, and the following year in which there was no fruit another set of fruit buds developed for the following year's crop of fruit. Examining tree No. 3 we see that we have something different. This tree has produced an amount of fruit averaging about the same as trees No. 1 and No. 2, but in no year between 1902-1910 was there a failure in the crop or even a poor crop of apples. This tree had exactly the same conditions as the other trees, and during the 9 years 1902-1910, in addition to bearing its annual crop of apples, it apparently had been able to produce its fruit buds for the succeeding year's crop. We also note in tree No. 3 that the crops are not as large as the crops in the biennial trees No. 1 and No. 2, and the records go to show that all together the fruit from No. 3 is of larger size and better appearance than fruit from trees No. 1 and No. 2, thus making it more saleable. The same thing applies in the other variety in which trees No. 4 and No. 5 represented this biennial bearing habit and tree No. 6 the annual bearing habit.

Prices of apples fluctuate from year to year, and years of big or normal crops prices will be low or normal and years of light or poor crops prices will be above normal or high, and the tree producing an annual crop of fruit will obtain for the grower the average of the high and low

prices, which will be much better than that obtained by the tree bearing only in the years of big crops. Biennial bearing tends to over production and consequently low prices. Annual bearing tends to moderate crops and a uniformity from year to year in prices. It is possible to find orchards in which these different habits are well illustrated and the biennial habit is by far the most common and whole orchards may produce their crop one year while the next year may be an off year so far as that orchard is concerned in crop production.

The question arises is it possible to produce annual crops of average size. Different varieties of apples vary in regard to their ability to produce annual or biennial crops. The Ben Davis, Northern Spy and Baldwin are examples of trees with a supposed tendency to this biennial character. The McIntosh and Milwaukee are examples of annual bearing trees.

In Oregon, Washington and British Columbia the growers expect to get annual crops of practically all varieties and do get annual crops with, of course, some fluctuations in the size of their crops. This is due to the fact that they are able to control the factors making for fruit bud formation and the development of the resultant crop.

At Sodus, N.Y., there is a well-known Baldwin orchard in which annual crops of Baldwins have been produced for some years, due to the fact that the proprietor is controlling the factors that aid in the production of the crop. If growers thoroughly understood the fact that a crop of apples is dependent for one factor, at least, on the fruit bud formation of the previous years and that when a tree is bearing an extra full crop there is little likelihood of that tree being able to produce fruit buds the same year, but that a tree bearing an



average crop of fruit may develop its crop and at the same time produce its fruit buds for the following year's crop. With an average crop of fruit a tree is likely to produce an average amount of fruit buds, but with a heavy crop few fruit buds can be formed and likewise with a light crop or no crop a great number of buds will be formed. Of course, weather conditions, such as frost, rainy or cloudy weather and bright cool weather, will have an effect in determining the size of the crop, but the average fruit grower can do much more than he is doing to aid in the production of annual crops.

By judicious pruning he may lessen the amount of bearing wood so that fewer fruit buds and consequently apples will be produced. In spite of this there will be favorable years in which some trees at least will tend to over bear and then it is a case of thinning the fruit or pruning after the fruit has set in order to lessen the number of fruits.

By judicious fertilizing he can do much in aiding his trees to produce annual crops. In a year of extra large crops, in addition to thinning the fruit, extra fertilizing would be desirable to assist the trees in carrying their crop of fruit and also in the development of a fair number of fruit buds for the following year's crop.

By spraying to protect the foliage from eating or sucking insects and in keeping it healthy, so that the leaves may the better perform their function of assimilating plant food, he will aid in the development of the crop of fruit as well as the fruit buds. Good cultivation is also a factor that tends to general good conditions in the orchard.

By understanding the development of the fruit buds a fruit grower can work much more intelligently in the various orchard practices and be able to produce medium to good crops of apples year after year.

---

## A Northern Quebec "All-Year-'Round" Home.



THAT a fine estate can be developed in northern Quebec, in spite of the extremely hard winters, is amply proved by the successful development of a beautiful "all-year-'round" home, located in the heart of the *habitant* country above Three Rivers. The town of Grand'Mere, in which this estate is situated, was a few years ago nothing but a saw-mill town. To-day, it is fast becoming a "model city." The estate of which I write is one of the show places of the town, situated high on a hill overlooking the river St. Maurice.

As you climb the log steps which ascend the face of the wooded hill, the

old-fashioned eaves of the fine old house come into view. You are immediately struck with a lively curiosity as to what you will find at the top, for the house is constructed of logs throughout.

A good view of the eastern half of the estate may be had from the top of the steps. On the left may be seen the east wing of the house with its massive door-way of cobble-stones, guarded by an old Revolutionary cannon. On the right, beautiful lawns, studded with fine old trees, stretch away to the woods in the near-distance. In the foreground there is an old log-cabin, now used as a clubhouse, which helps to give a very "woody" appearance to the grounds.

The other half of the estate can be seen to advantage by following the brick path which skirts the wing of the old house. On the right can be seen the tennis-court with its thatched, rustic shelter-house, and in front, a few huge old trees, half hiding the log-built sheds, form a very effective setting to the garden.

This lovely garden is enclosed on three sides; on the south by the greenhouse, which is attached to the residence; on the west by the log-built sheds,

with masses of phlox, monk's hood, larkspur and other perennials, with annuals planted either among them or in the borders. There are also beds of many colored sweet-william, bordered with lovely German iris and gladioli. One bed, near the drive-way, is filled with showy peonies and daisies, with pansies and Californian poppies in the border; another very effective colour combination is produced in one place by planting blue corn-flowers with golden coreopsis. The flatness, common to



A Corner of the Grounds in June.

and on the north by a lilac border which marks the boundary line between the flower and kitchen gardens.

Without a doubt the beautiful flower garden is one of the chief attractions here. The large, well-designed beds are laid out around a central lawn of Kentucky blue grass. Conifers, flowering shrubs and perennials are planted along the sides of the sheds and greenhouse. These shrubberies help to form an effective background to the rest of the garden. Most of the beds are filled

gardens of the kind, is here eliminated by the judicious use of *rosa regusa*, *spirea* and other flowering shrubs.

The kitchen garden is screened from the house by the border of lilacs mentioned above. The chief object in this part of the garden is to produce early vegetables and those vegetables not obtainable locally. Green peppers, egg-plants and other tender plants are grown here in frames. A long sweet pea trellis extends the whole length of the kitchen garden, and in the summer is

covered with a mass of sweet-smelling bloom. A large bed of hybrid perpetual roses is laid out parallel with the sweet pea trellis, and in the summer presents a very pretty sight, the white of the Frau Karl Druschki presenting a striking contrast to the red and pink of the other well-known varieties.

The greenhouse is divided into three houses, and in the first, ferns and flowering plants of many kinds are grown for the conservatory. The second house is given up wholly to roses of many varieties, over a quarter of the bench space being occupied by a new rose called Pink Richmond. As its name implies, Pink Richmond is a "sport" of the famous Red Richmond. This pink sport originated in Virginia, but was given to the head gardener of this state by the originator, and has been successfully grown in Quebec for the last four years. In many ways it is superior to the red variety, the buds are longer, larger and the petals are of better quality; it is a free bloomer, a vigorous grower, and is practically immune to rose mildew. In color, it offers a pleasing contrast, being

a deep coral pink on the outside, and a beautiful silvery-pink on the inside of the petals. It undoubtedly merits a place with the standard varieties of today. The third house is used for the growing of chrysanthemums and winter vegetables, such as lettuce, cress and cauliflower. Mushrooms are also grown under the benches in the house.

Great improvements have been made in the appearance of this estate during the last few years, and great credit is due to those who planned and carried out this work. Twelve years ago there was practically nothing but bushland where there are now spreading lawns and beautiful gardens. Since then the dwelling-house has been modernized, and the greenhouse and conservatory have been added.

If improvements are carried out in the future as they have been in the past it will be no idle boast to say that this will continue to be one of the finest "all-year-'round" homes in Northern Quebec.

A. H. TULL, Agr. '17

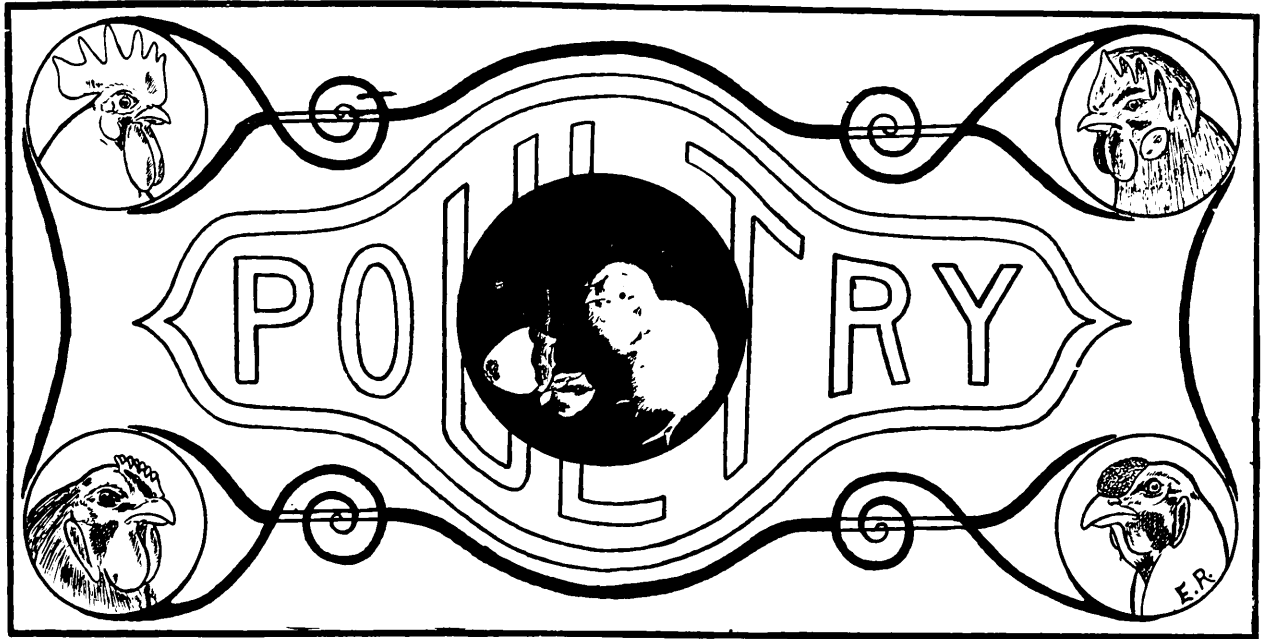
## Macdonald Horticultural and Apiary Club.



HE club did not reorganize until rather late in the term, it being early March before a meeting was called. Though late in starting, the executive are busy and plan holding several good meetings before the end of the term.

At the reorganization meeting on March 9th the following officers were elected:—President, C. E. Chute; Vice-President, L. R. Jones; Sec. Treas., W. J. Reid; Committee, Class '14, T. F. Ritchie; Class '15, H. B. Roy; Class '16, Hyndman; Class '17, S. Skinner; Arch. Walker.

On March 18th, the club enjoyed several interesting papers by members of the club. Prof. Bunting gave a very interesting paper on the varieties of horticultural produce to be found on the Montreal market at present. Mr. Ritchie gave an interesting paper on the McIntosh Red, its origin, history and some of its good qualities. Mr. O. Shafheitlin discussed the Northern Spy, Mr. H. J. M. Fiske discussed the different varieties of grapes grown in the Niagara Peninsula and some methods of handling the crop in cold storage. The last speaker of the evening, Mr. J. McCormick, gave a very interesting paper on Bananas.



## Brooding.

By S. A. BERGEY, B.S.A.



THE successful brooding of chickens depends upon conditions which may be divided into two groups. 1st, the combination of influences which decide whether a chick shall be well hatched; 2nd, the influences acting upon the chicks during the actual brooding period of their lives.

The writer believes that the influences of group one not only affect the embryo chick, but also affect the chicks after hatching. Chicks well hatched are half brooded.

The chicks themselves are the best indicators of their condition and of their chances of future growth to a mature age.

Healthy, hungry, vigorous and active chicks that come out of the shell on time will grow thriftily throughout the brooding period under reasonably favorable conditions of management. Weak, inactive chicks that are sleepy, thirsty but not hungry, and hug the heat, will dwindle and die in spite of perfect

conditions of brooding. Even the best of care with perfect surroundings will not save them.

### MISTAKES BEFORE INCUBATION

Some of the conditions which injuriously affect the chicks during the incubating period of the eggs and reduce the chances of successful growth during the brooding stage are:—Using weak or immature parent stock, or stock that lacks vigor and constitution; the effect on the reproductive organs through forced egg production, and improper methods of feeding, breeding and housing management.

### ERRORS DURING INCUBATION

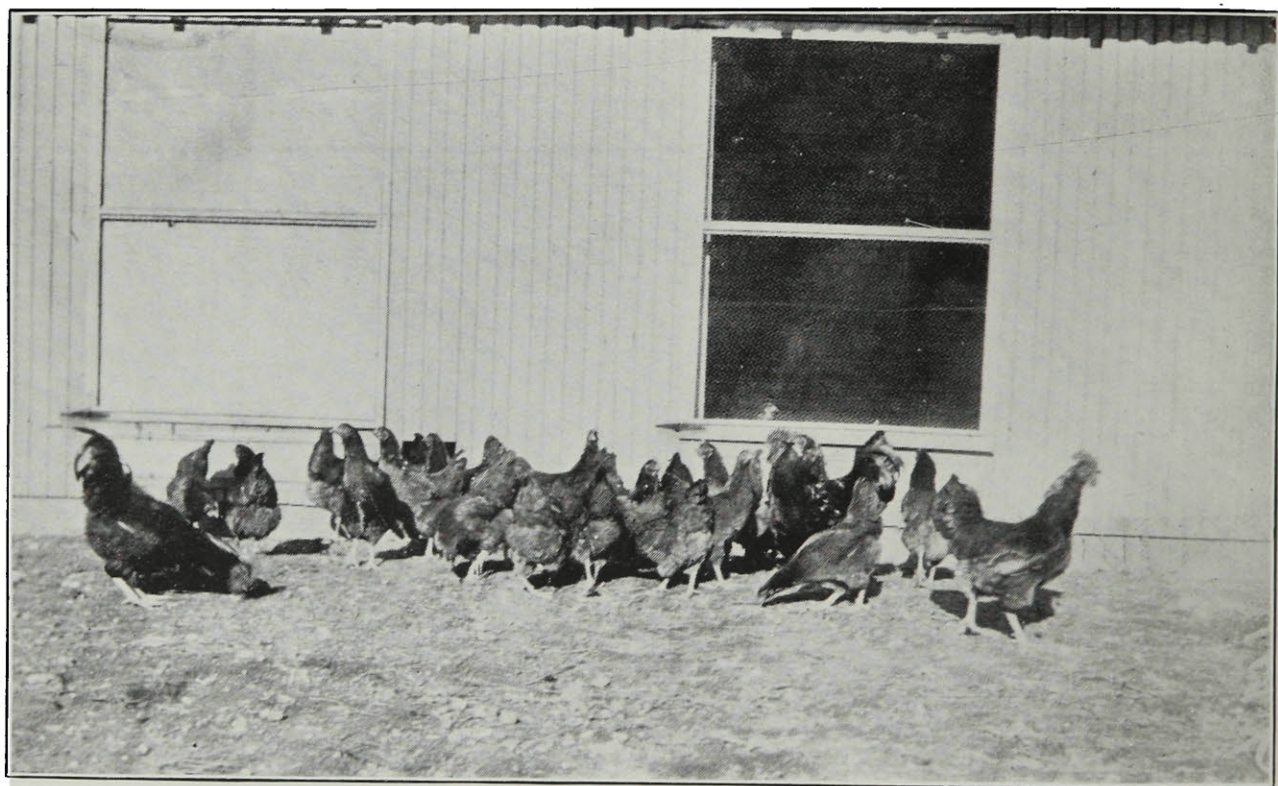
During the process of hatching, influences which cause death in the shell, if they do not actually prevent hatching, may cause the death of the chick during the brooding period. Some of these influences are:—Too high a temperature during the first week of incubation; chilling of the eggs so as to seriously



delay the hatch. These, and other influences that cause over stimulation or halting of the development of the chick, may follow the chick to the brooder and defeat the purpose of the poultryman.

If any one or more of these influences have resulted in the hatching of weak chicks, apparent or non-apparent, the chances of a satisfactory growth in the brooder are small. Success in brooding calls for healthy, normally developed

the chick with sufficient nourishment during the first few days of its life. If through mistaken kindness, the attendant begins feeding the chicks promptly after hatching they are liable to get digestive troubles, because the flow of the yolk into the intestinal canal is stopped. The yolk, instead of dwindling to a minute size after a week or more, remains large, its contents ferment and the chick dies.



Well Matured Poultry at Six Months of Age.

chicks to start with. The chick has a full chance only when its inheritances are of the best or, to use the words of Mr. H. R. Lewis, Rutgers College, "Heredity is the foundation with prepotency for the corner stone."

#### BEGINNING BROODING

After the chicks are hatched do not feed them for thirty-six hours or, better, forty eight hours. The perfectly formed, properly hatched chick, during the later stages of incubation, has absorbed into its abdomen the yolk which supplies

#### ARTIFICIAL METHODS OF BROODING

The essential requisite is to have them well hatched. Whether hatched under hens or in machines, chicks may be brooded artificially. Whether this shall be done by means of small indoor or outdoor brooders, or by means of placing hovers heated by kerosene lamps placed in colony houses, or by a brooder house or brooder stove placed in a house, depends upon the poultryman, the location, the availabilities and the object in view. Whatever system is followed

the essential factors, as far as shelter is concerned, are temperature, ventilation and moisture, which must always be under complete control. To secure uninterrupted growth the chicks must be kept continuously comfortable, with an abundance of pure air without drafts.

Cleanliness and the banishment of mites, lice and disease germs are very important and they can easily be achieved by cleaning the quarters every week or ten days. Disinfect with a ten per cent solution of some commercial disinfectant when cleaning. What we seek to secure by artificial conditions is all the favorable conditions which attend a brood of chicks under the mother hen, free to range out of doors during the months of May and June in a temperate zone.

#### STARTING AND RUNNING THE BROODERS

About the time the chicks commence to hatch, the heat should be started in the brooders or brooder house, so that they may become well warmed and properly regulated by the time the chicks are ready for the brooder. A temperature of about 95°, three to four inches above the floor, should be secured and maintained during the first week of brooding. Gradually the temperature should be lowered so that at the end of the first week the temperature should be about 88-90 degrees. Gradually keep lowering about one degree a day until, at the end of the third week, 65-70° should be sufficiently high. It is well to remember in brooding chicks that every fifteen chicks under the hover raise the temperature approximately one degree by the heat given off from their bodies. The chicks themselves will be the best indicators, however, and a temperature should be maintained which will keep them comfortable.

Before placing the chicks in the brooder, brooder house or colony house

in which the brooder is placed, cover the floor with two or three inches of finely cut straw, hay chaff or even shavings. All of these will give fairly good satisfaction providing they are dry and free from mold and dust. By all means do not use moldy or damp straw as this will prove fatal to the chicks. Cut clover or cut alfalfa makes the better material for the chicks. When the brooder is ready, transfer the chicks from the hens or incubators to the brooders about fifty in a lot. Be careful your chicks do not get chilled during the transfer from machine to brooder. If there is any danger cover the basket with a warmed cloth and carry quickly to the brooder.

#### ARTIFICIAL BROODING

For the first few hours it is well for the attendant to be on hand to watch the little chicks. The artificial mother does not cluck like the mother hen and the chicks have to be trained to go under the hover for warmth. The space allowed outside the hover for the first day or so should be small. A board set on edge in front of the hover and confining the chicks to a space within six inches of the hover curtain will be large enough. This prevents the chicks from wandering too far away from the hover.

Sometimes when no board confines them near the hover they run out and get away from the hover and collect in a nice sunshiny spot. When the sun moves away the chicks are likely to stay in the same spot, having forgotten the warm hover. When they begin to feel chilly they crowd together and may possibly pile on top of each other in their efforts to keep warm. If this crowding continues some of the chicks are liable to become suffocated or trampled to death.

After having learned where to find the warm hover it is desirable that the

chicks remain in it as little as possible during the day time. The temperature outside of the hover should be kept high enough so that the chicks running about and scratching in the chaff keep themselves comfortable without hovering. Exercise is essential to the health of your chicks, and if your temperature outside of your hover is too low the chicks will refrain from taking exercise and will spend their time under the warm hover. This hugging of the heat, to say the least, is not conducive to success and is often the forerunner of disease.

#### CLEANLINESS

Watchfulness is necessary in the case of brooders to avoid everything tending to unhealthy and unthrifty conditions. If a chick dies it should be removed at

once. Clean and disinfect your brooder once a week at least. Disinfect with any of the commercial disinfectants using a spray pump or a whisk broom.

On pleasant days it is found good practice to remove the hovers and lay them underside up out of doors in the sunshine at noon for several hours. If body lice get on the chicks dust them clear to the skin with insect powder which may be obtained at almost any drug shop. (Pyrethrum powder.)

In conclusion, let me repeat: Study your chicks. Watch their conduct and be guided largely by their actions and appearance; by the sounds they make; by their bright active movements; by the way they welcome their food; by the condition of their bowels; by the way they feather out; and by the rate of growth they make.

## American Association Meeting at Macdonald College.



THE seventh annual meeting of the American Association of Instructors and Investigators in Poultry Husbandry will be held at Macdonald College in August.

This Association is composed of poultrymen in the United States and Canada who are connected with Agricultural Colleges, Experiment Stations, State, Provincial and Federal Governments. It is an international association of wide repute, and since its inception, six years ago, it has done much to further the interests of poultry culture in America. Through the organization of this Association the educational and investigational phases of the poultry industry have been well outlined and defined.

The annual meetings of the Association are held at Agricultural colleges in various parts of the country. This

year the Poultry Department of Macdonald College will have the honor of entertaining the Association.

The officers of the Association are:—  
President:—Prof. J. C. Graham, Mass.  
Agr. College, Amherst, Mass.

1st Vice-Pres.—Prof. W. F. Kirkpatrick,  
Conn. Agr. College, Storrs, Conn.

2nd Vice-Pres.—Mr. M. A. Jull, Macdonald College, Que.

Sec'y-Treas.—Prof. H. R. Lewis, N. J.  
Agr. College, New Brunswick, N.J.

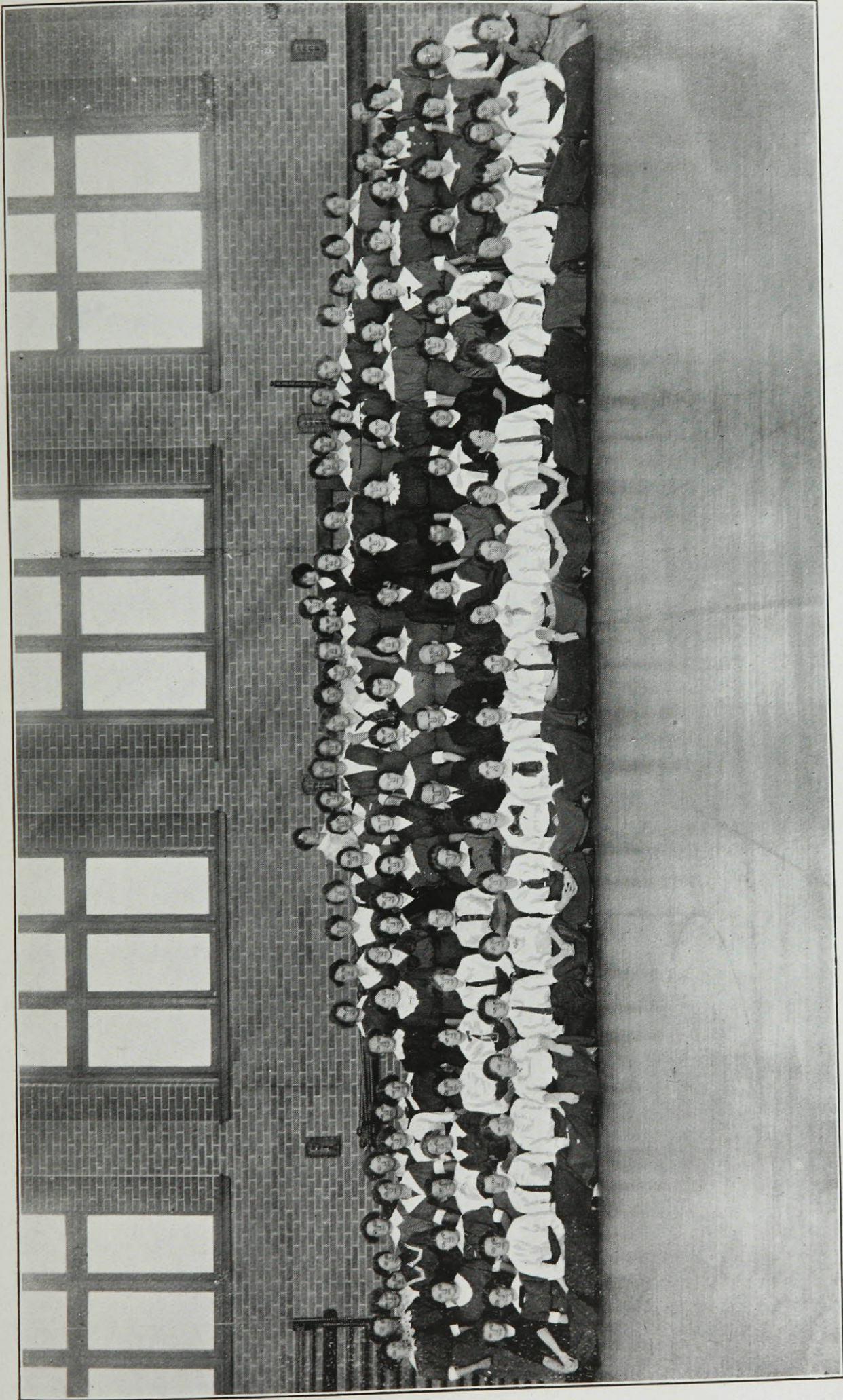
Directors: 1912-14.—Dr. Raymond Pearl, Maine Exp. Station, Orono, Me.  
Prof. J. E. Halpin, Wis. Agr. College, Madison, Wis.

Director T. E. Quisenberry, Exp. Station, Mountain Grove, Mo.

1913-15—Prof. W. R. Graham, O. A. College, Guelph, Ont.

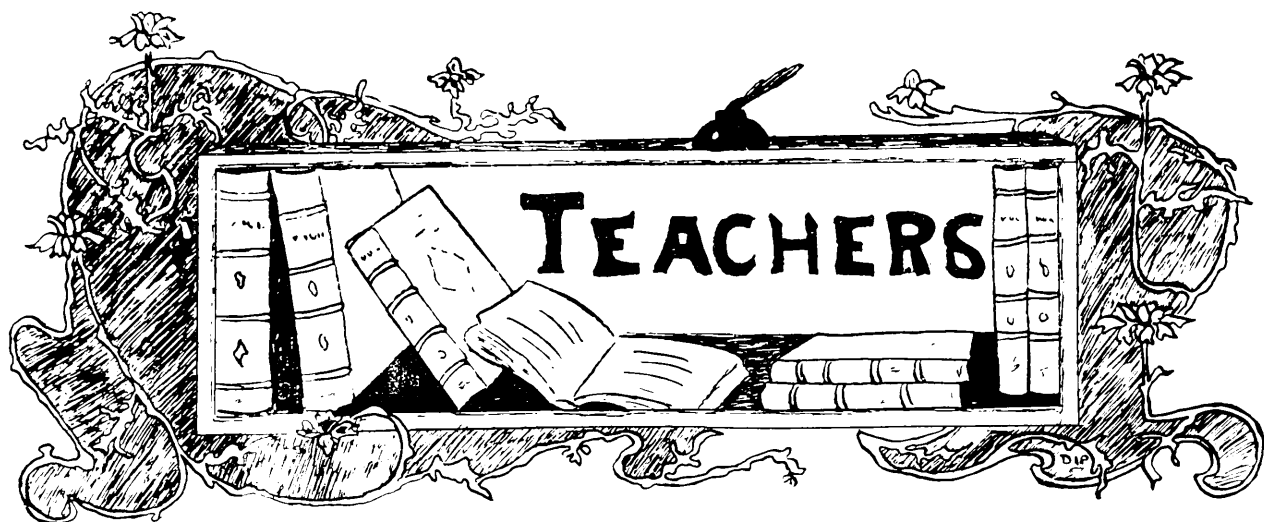
Prof. Jas. E. Rice, State Agr. College, Ithaca, N.Y.





TEACHERS—MODEL CLASS.





## Pictures in Schools.



**D**URING the last few years there has been a stir among Canadians towards improving the education of this country. A change for the better has taken place; but there is still much room for improvement.

Good teachers, on whom largely depends the training of young minds, are ever in demand: but the teacher is not the sole factor to be considered in the child's education. The course of study, the school and its surroundings, home environment, etc., play an active part.

Perhaps one of the subjects that has not been thought to be of very great importance, and therefore as yet little discussed, is that of pictures in the school. Illustrations are now being used more and more by competent teachers; and I think every one agrees that there is no comparison between the old way of merely drilling on the bare facts of the lesson and the more modern method of illustrating as far as possible.

There is, however, a broader view of the subject than this, namely: the pictures that should hang on the walls of the school-room. Ruskin has said, "A room without pictures is like a house without windows." and why should not this apply as well to the school?

The question then arises as to what kind of pictures are most suitable for the child. Although there are certain likes and dislikes, common to most children, it will be well for the teacher to know something of the child's home environment before making the selections.

The pictures should be taken from masterpieces, and should be suited to the particular grade for which they are meant. Nearly all little children have a love for wild and domestic animals; and the teacher would find pictures of certain animals, taken from their various haunts, invaluable in teaching the care and treatment we should give them. Pictures representing some events in little stories, children at work or at play, children of other lands, might also be used. The choice is unlimited in these respects; and the pictures should from time to time be changed. In the higher grades such pictures as the author of some work in literature which the class is studying, a beautiful sunset or sunrise, some scene representing an important event in history, one or more of the great musicians, scenes from every day life, some biblical events, etc., might be taken.

The value of such pictures is far-reaching, not only as regards their immediate

use in the school-room, but also for their aesthetic value. They may serve as topics for composition work, literature, drawing lessons and nature study, not to speak of the morals that could be drawn from many of them. Thus they afford an unlimited supply of material for interesting work of almost every kind. A great many poor children in large cities, who have never had the privilege of breathing anything but the impure air in which they live, in seeing only little patches of grass and flowers with probably a "No trespassing" sign at every corner, would have a better conception of what country life is really if they could

see before them some scene taken from the home, barnyard, garden, etc., in the country.

By contrasting good pictures with poor ones, by noticing the soft tints and shades, the expressions on the faces, and the arrangement of the objects in the pictures, the children will develop a love for, and an appreciation of, the beautiful, which will be of even more service to them as they grow older. To my mind, the greatest value is what the pictures really means to the child. Let him study the picture and find out as far as possible for himself what the artist wishes to express.

F. HOWARD, T., '14.

## L'Isle Percée.



THE great waves in the Gulf of St. Lawrence rolled slowly along, chasing one another, until at last they burst into foaming billows on the shores of the mainland. Many, indeed, reached the sandy beach. Several were not permitted to make their whole journey, but were stopped by a huge barrier, a rock of enormous size, which stands a little to the south of the mouth of the great and glorious river discovered by Cartier in 1534, and which was called by him "La Riviere Grande."

In those days, this rock had passages through it in the form of arcades. Through one of these a barge could pass at full sail. Thus, the early French explorers called the rocky islet, 'L'Isle Percée."

Prosaically, this island may be described as an isolated mass of limestone, consisting of strata that are almost

vertical. It stands about six hundred feet from the mainland. A sand-bar stretches across the intervening space, and over this bar one can walk at low tide. It is a difficult and dangerous thing, however, to make the circuit of the rock on foot, as there are very few retreats to take shelter in from the tides.

The rock is very massive. It is about fourteen hundred and twenty feet in length, two hundred and eighty feet at its highest peak, and from this elevation gradually dips a little to the south. Its greatest width is about three hundred feet; its diameter varying greatly along the projections and recesses. The portion of the rock exposed above water weighs about four million tons.

Formerly this rock was pierced at the southern end; and the arch was so large and wide that the strata above it did not have a sufficient support, and, therefore, tumbled into the sea. Thus we find at the southern end, a column



entirely isolated from the parent rock. At the rear of the large rock we find an arched tunnel, which is from sixty to sixty-five feet in height.

The inhabitants of the mainland cut hay on the top of the rock, and gathered the gulls' eggs, in early times; but of late years a large projecting mass on one side of the rock has fallen away, and now it is wholly inaccessible.

Percée Rock is a mass of brightly coloured strata. Its walls are tinted in shades of purplish-red, yellow, grey, and blue. There are large veins of white calcite, which are seen distinctly. The

find that there was only one arch. Later, when he returned, he observed two others, and then as one of these was broken in his day, it is evident that the work of destruction progressed rapidly at that time. However, the sea and frost will have a work of many years before they will completely obliterate this landmark. We are told that a fair average of the fallen rocks would be from three to five hundred tons a year. At this rate, the rock should stand for over twelve thousand years. Therefore many generations will be permitted to view this wonderful piece of God's handiwork,



Sketch of Isle Percée.

summit is covered with green grass during the summer months, and with snow during the winter. The gulls fly around this rock in large numbers, looking like great white clouds, and rending the air with their cries.

The gradual destruction of this rock, which has now one arch and is divided into two parts, is mostly due to the combination of frost and sea acting upon the strata. The falling of the arch at the southern end in 1845, brought down thousands of tons of rock. From Nicholas Deny's statement in 1672, we

if it ever be their good fortune to float down the waters of Cartier's "Great River," and make their way through the beautiful gulf, which is protected from the Atlantic Ocean by the island of Newfoundland and the Maritime Provinces.

Like all places of interest, Percée Rock has its myths and legends. This following story is told by the inhabitants of the mainland, but its authenticity may be judged by the reader.

Roberval, with his new equipment, sailed from the home land on his second

voyage (1542). He had told stories of the wonders and attractions of the New World, and thus had induced many ladies and gentlemen of noble birth to seek their fortune in the new land. The King of France had given orders that the ships should be manned by convicts; and that these men should do the servile labour in "New France," as the new domain was called.

Roberval had a merry time crossing the ocean. His passengers soon became acquainted with each other; and his niece, whom he had brought with him in the hopes of marrying her to some rich nobleman, met a young Norman, Galliard by name, in whom she became very much interested. Roberval was very angry when he saw this, for he had had higher ambitions for his niece than marriage with a sailor. Helène, however, did not care whether Galliard was rich or poor; and she would not give in to her uncle.

Roberval was sailing from the Gulf into the mouth of the "Great River" when his niece rebelled. Feeling no sympathy for her or her lover, he swung his barge around, and headed for the land. He came to a rocky islet in the midst of the sea; and on this barren spot, inhabited only by feathered dwellers, the gulls and cormorants, he landed the two young people. Turning his vessel around he sailed out of sight up the "River."

Left alone, with no hope of succour, the lovers began their dreary existence. The cold, hunger and storms made their lives miserable and unbearable. As the mainland was uninhabited, they did not expect help to come to them, so Galliard thought that he would try to reach land in order to get wood and food. The sailor bound together pieces of driftwood, which he found in the nooks of the rock, and, lashing himself to this support, jumped in among the waves.

Days passed and still Galliard did not return; and the truth dawned upon Helène. Her lover was lost, and she was alone. Alone, with no help at hand, and with no one to take care of her.

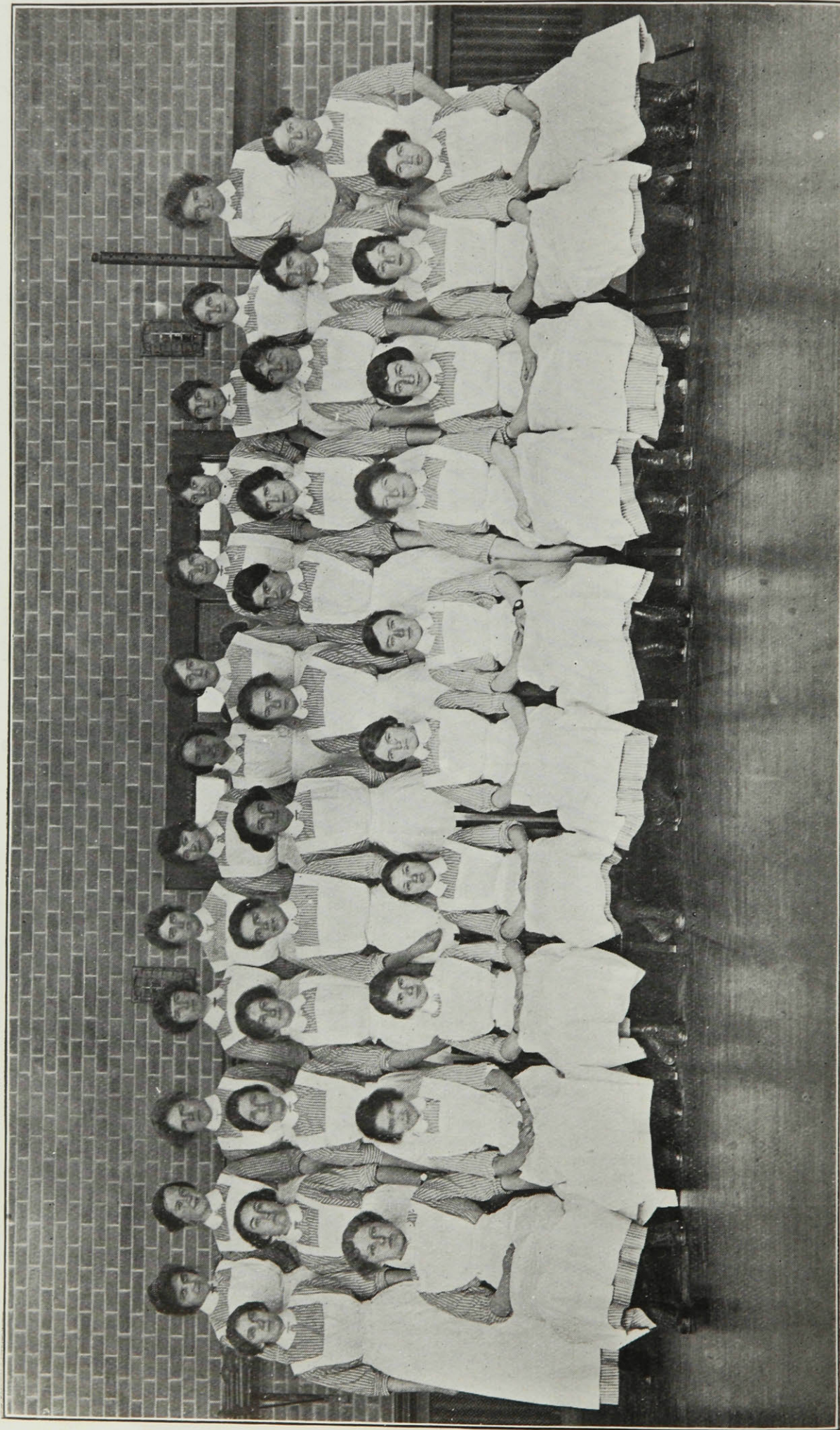
For two years the girl lived on the barren rock, eating the eggs which were plentiful, but difficult to get, and warming herself by making fires of the driftwood, which she gathered at the base of the rock. At the end of that time, some hardy fishermen passing near the rocky islet, heard her cries, and rescued her. Soon after the brave young girl yielded up her life as a result of the trials and sufferings which she had experienced.

The fishermen of to-day say that in rough weather the girl's cries may be heard floating along with the breezes, over the waters of the deep.

J. I. LINDSAY, T., '14.

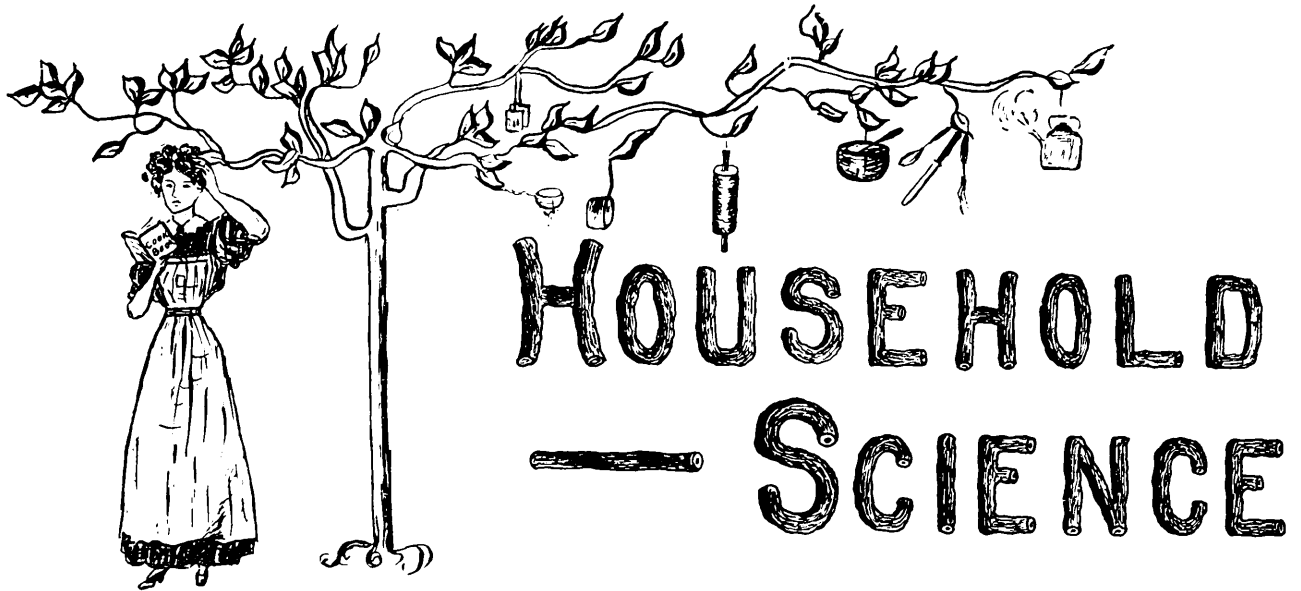
---





HOUSEHOLD SCIENCE CLASS.





## How Would You Divide the Income for Two?

By MISS L. B. ROBINS, B.A., School for Teachers.

**T**HE subjects of the course in Household Accounts which seem to give students, especially those of the short courses, perennial interest are "The Marriage Laws of Quebec" and "The Division of the Income," especially the division for *two*. As we reach the borders of these subjects in the lecture course, there appears to be a tightening up of interest along the whole line of work, and an awakening of thought which finds expression both in public, in the classroom, and, in private, in the office. "I expect to be married soon. We shall have an income of \$... .., how should we divide this money, so as to make the most of our income?" These students are at work upon right lines, the business side of home-making. The division of the income should be settled promptly and by the united wisdom of both partners in the transaction.

The women upon whom society depends, the ones who build the nation, are at the great business of founding

and filling those natural centres which we call homes. Humanity will rise or fall as that centre is strong or weak. It is the human "core," The effort of woman to prove herself the equal of man is a work of supererogation. If man is to remain a civilized being, he must be held to his business of producer and protector. The woman cannot overlook her obligation to keep him up to his part in the partnership, and she cannot wisely interfere too much with that part. "The fate of the meddler is common knowledge!" So says Ida Tarbell, one of America's brainiest women, in her book "The Business of Being a Woman." Miss Tarbell is the Associate Editor of the American Magazine and the author of "The History of the Standard Oil Company," "The Life of Lincoln," etc.

There is an ever increasing band of women giving serious thought to recording the initial value of the household plant, providing for the proper upkeep of this plant, deciding the relative amounts to be set aside for food, cloth-



ing, rent, fuel, light, service, education, charity, recreation and investment, appraising definitely the value of the housewife in changing raw material into the finished product, and the wastes and profits of bad and good management in the home.

It goes without proof that, if every wife and mother in the land attended to her home faithfully after marriage, and prepared herself by education of soul, mind and body for her work before marriage, there would be no need of prisons, penitentiaries, insane asylums, etc. All the criminals in the world have come from some family or other, or from what ought to have been a family. A woman's business is home-making, if she has a home to make, and there is no work in the land that requires greater powers of mind than this same business.

The division of the income of the family shows to some extent the ideals of the family life or, at least, the realized ideals. It is a bad thing for any community to have in its midst families living on starvation incomes. These lower the social standing of the whole community. Recently, the Carpenter's Union of Montreal called a strike, demanding a minimum wage for carpenters of thirty-five cents an hour. The Union issued a table of statistics showing the division of the income of a man with a family of eight children, a very common size of family in the east end of Montreal, on a 30 cent per hour rate. It shows not only the impossibility of saving but even of keeping out of debt on such low wages:

	Per Year.
Rent.....	\$114.40
(A very small house, but not a shack.)	
Water.....	8.84
Heating, lighting.....	48.88
(Coal oil for light)	

Groceries.....	199.16
Bread.....	62.40
Butcher..	156.00

(Inferior cuts of beef, mutton veal, pork, liver, tripe, fish).

Shoes.....	38.04
Clothes.....	134.16

(Must cut down to this or go hungry).

School....	7.80
Scholar's furnishings...	13.00
Milk.....	31.25
Physician. . . . .	15.60
Mutual Societies. . . . .	18.20
Sundries for house..	50.44
Charities.....	9.88
Car tickets.....	22.36
Help..	None

(Wife must do all the work, including washing and sewing)

Amusements...	None.
(Must be taken in church life, until salary increases).	

---

Total.. . . . \$930.80

Wages earned at 30 cents an hour for a 9-hour day would amount to \$761.40 a year. This would leave a deficit at the end of the year of \$169.40, and is an income \$38.60 below the Socialist limit of \$800.

It is stated that some men fear to marry because they cannot visualize the future division of the income, so as to make it cover all needs. To such men "The Cost of Living" and the "Cost of Food," by Mrs. Richards, would be of service.

Mrs. E. H. Richards, the authoress mentioned above, who has tabulated the average division of the income in the United States, for two adults and three children on yearly incomes of \$1,000, \$2,200 and \$3,600, gives approx-

imately the following percents of the total income:

Rent.....	16%	to	20%
Clothing.....	17½%		
Food.....	27%		

(Practically constant whatever the income).

Running expenses.....	16%
Investment.....	4%
Charity.....	4%
Education.....	4%
Education..	4%

(Or less.)

Recreation.....	4%
Incidentals...	4%

(As salaries increase these increase on the whole.)

When the income is so small as to make living a struggle for existence the apportionments for rent, taxes, heating, lighting, food and clothing, if the family consists of the same number of persons in each case, bear a practically constant proportion to the whole income, but vary considerably with an increase or decrease in the size of the family. As the income increases, the part set aside for the higher life, that above mere existence, increases.

There is very little reliable material relating to Canadian conditions upon which to base a division of the income for Canadian homes. In my collection of such material I have definite information from eastern, western and central Canada, i.e., from Nova Scotia to Vancouver, but the cost of living is so various, the conditions of life so different, and the ideals or standards of living so varied and inflated at the present time, that an average of value is not easily reached.

The division of the income for the first year in any family is the hardest to

determine, for the experience of each preceding year helps in the division for the following year. Few young housekeepers are willing to confide, even to their best friends, the crude divisions and failures of that first year, so there is very little reliable information to be obtained. To supply the deficiency of fact writers in the women's magazines sometimes call upon their very lively imaginations and present us with budgets which carry on their faces the stamps of their spuriousness.

A Montreal lady gave me her division of the income for two adults, herself and husband. For obvious reasons this is tabulated here in percents of the total income, budget No. 1. Beside this may be placed a somewhat similar division for two adults given by Miss Terrill. The income in this latter case is \$1,200 a year, and the divisions are given in dollars, budget No. 2. The divisions do not exactly correspond, but they are close enough to make comparison possible, and percents can be readily reduced to dollars and cents or vice versa for any given income.

	Budget No. 1	Budget No. 2.
Rent... ..	26%	\$192.00
Taxes (water and business)...	2.3%	
Insurance (fire, life)...	9.8%	84.00
Gas and coal. . . . .	7 7%	42.00
Telephone (local and long distance)....	2.3%	
Maid (young).....	6.5%	36.00
Food (supplemented by supplies from country)	16.6%	270.00
Church. . . . .	5.5%	
Clothing...	11.5%	360.00
House furnishing.....	2.0%	
Traveling (go as you can).....	2.0%	42.00

	Budget No. 1.	Budget No. 2.
Papers, magazines, music.....	2.3%	
Amusements.....	1.0%	
Medical services (various).....	1.5%	
Laundry.....	1.5%	
Incidentals.....		54.00
Saving.....the balance		120.00
	100%	\$1200.00

We seldom come across a duplicate of any one family division of the income, so that these statistics are for the purpose of comparison, not for exact copy. The average division of the income for a country serves as a standard by which

individual housekeepers may check their expenditures, while a number of genuine individual budgets of people living well on their incomes will show the possible variety within well-defined limits.

If the standard division of the income is either exceeded or fallen below, it would be well for the housekeeper to seek the underlying cause in the interests of the physical, mental and moral well-being of the family.

The business woman, whether the business be homemaking or some work outside the home, must keep constantly before her the fact that "the greatest of all obstacles to social progress is lack of directive intelligence, of skill in management."



Spring Short Course.



## Faculty Items.

### MACDONALD COLLEGE CLUB.



THE monthly meetings of the Macdonald College Club, under the Presidency of Mr. M. A. Jull, and the Secretaryship of Mr. F. M. Clement, have continued to be a source of literary enjoyment and pleasant social intercourse. An unusually large number of speakers of wide reputation has addressed the Club this year. The hearty support given the organization by local talent, whose contributions to the programmes have added much to the pleasure and profit of the meetings, has been a gratifying feature of the year's work.

At the January meeting of the Club, Rev. Dr. Scott, of Quebec City, delivered an unusually able address on "Poetry and Emotion." Dr. G. C. Creelman, President of the Ontario Agricultural College, Guelph, addressed the February meeting. Dr. Creelman's subject, "The Romance in Agriculture," left much more than the memory of a pleasant evening in the minds of his audience. Professor Brodie Brockwell, of McGill University, was the speaker at the March meeting. Professor Brockwell has the rare faculty of treating a highly technical subject in an unusually attractive and memorable form. His address on "Social Anthropology, with special reference to Exogamy, Endogamy and the Classificatory System of Relationship," was listened to with especial interest.

### SNOW-SHOE CLUB.

To those not given to excessive musing by their own fireside, this club makes a strong appeal. Through the avenue of this organization have come many enjoyable evenings during the past winter. Frequent tramps, interspersed with an occasional sleigh ride, or an evening devoted to tobogganing or skating, have provided healthful recreation for the members. Interest has not been confined to the younger members of the faculty. To many of more mature years the call to the weekly "tramp" has made an irresistible appeal. Refreshments, served at the homes of the members, have given added opportunity for social intercourse and have brought many an enjoyable tramp to a most satisfying close.

□ □ □

### BACHELOR'S CLUB.

Interest in the series of lectures delivered under the auspices of the Bachelor's Club has been well maintained. "The Glacial Period and a Theory" was the subject of an interesting and suggestive address delivered by Professor Kneeland at the opening meeting. "The Horticultural Interests of Canada" were comprehensively presented by Professor Bunting at the January meeting, while Dr. Snell addressed the last meeting on "The Products of Maple Sap."

L. S. K.



AGRICULTURE '16.

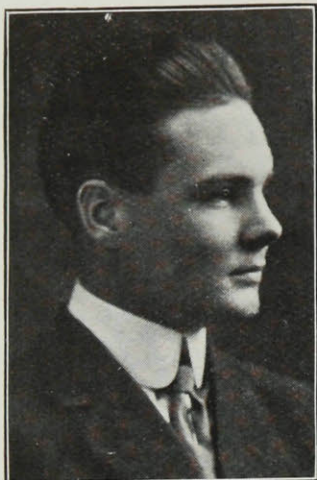


## Our Graduating Year.

---

Men of Class 14, for four years you have been with us, but now the time has come to part and say farewell. We hope the time spent within Macdonald's walls has done much to prepare you for the problems of life that will continually confront you in the coming years of toil and endeavour. We hope that along with the purely educational problems you have studied, and benefited from, you have received that vision, which must come to us all before we can accomplish our best both for ourselves and for our fellows; that vision which shows us that the key-note of our lives must be service and sacrifice but not self. As you take your departure from Macdonald, we wish you to know that as a student body we extend to you our sincerest wishes for success in your future endeavours to accomplish that work to which you may be called by those who desire your services. In addition we wish you all happiness, health, and a long life of profitable service to your fellow-men.





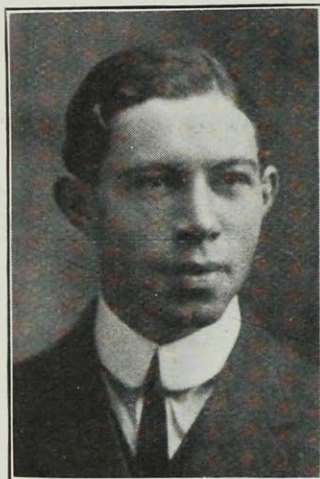
CARYL F. COFFIN. (Marconi)

*"Swift of foot was Hiawatha"*

Montclair, New Jersey, 1894.

Montclair High School, Montclair Military Academy. Two summers in the College Departments and one in the Niagara District.—Horticulture.

□ □ □



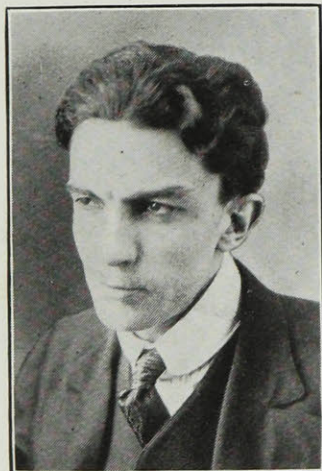
P. RUSSELL COWAN (Jimmy)

*"Dearly do I love the gentle "Short Course"*

Gloucester, England, 1892.

Lancing College, Came to Canada in 1910. Two summers in the Cereal Husbandry Dept. Macdonald College. Chief Decorator. — Cereal Husbandry.

□ □ □



ROBERT DOUGALL (Mephistopheles)

*"His only dissipations are his dreams."*

Pretoria, South Africa, 1889.

Boy's High School, Paarl, Cape Colony. First three years at the Ontario Agricultural College. Class Orator—Bacteriology.

□ □ □



F. LISLE DRAYTON.

*"He is a scholar, and a ripe and good one."*

Barbadoes, West Indies, 1892.

St. Kitts, Nevis Grammar School and Harrison College, Barbadoes. Spent two summers in the College Departments.—Biology.



## VERNON B. DURLING (Ginger)

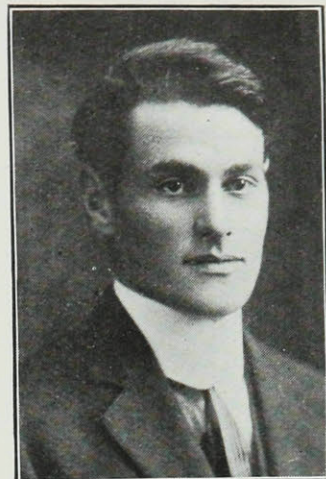
*"I am as virtuously given as a gentleman  
need be."*

Lawrencetown, N.S., 1893.

Graduate of Truro Agricultural College.

Adv. Mgr. of M. C. Magazine, 1913.

Cereal Husbandry.



□ □ □

## HOLLIS J. M. FISKE.

*"I dare do all that may become a man."*

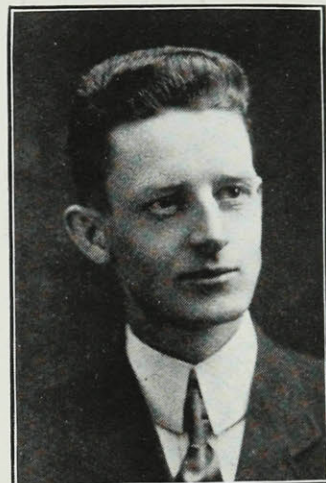
Fredericton, N.B., 1890.

McGill Arts, 1809-10. President Class

Sophomore, Senior Year, and Students'

Council. Magazine Board (a Booster).—

Horticulture.



□ □ □

## DAVID W. HAMILTON, M.A., Ph.D.

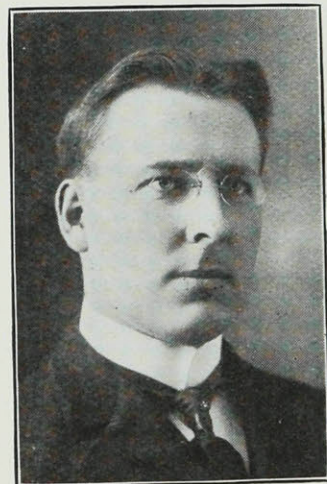
*"Some are and must be greater than the rest"*

Florenceville, N.B., 1878.

University of New Brunswick. Professor

of Nature Study, Macdonald College, 1913.

—Horticulture.



□ □ □

## CLARENCE M. HODGE, (Mary).

*"A man of few words."*

Cookshire, Que., 1893.

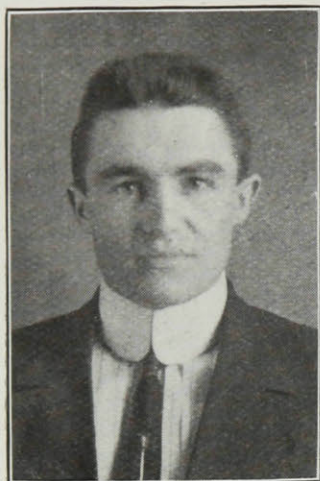
Cookshire Academy. High-class standing.

College Baseball and Basketball Teams.—

Cereal Husbandry.





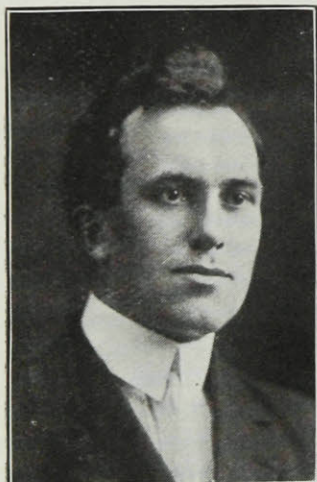


RALPH R. HUESTIS

*"It would talk, Lord, how it talked."*

Bridgewater, N.S., 1892. Edmonton and Red Deer, Alberta High Schools. Athlete. Captain of Hockey Team—Animal Husbandry.

□ □ □

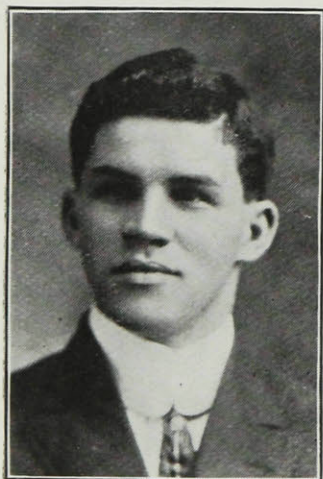


RAY E. HUSK. (Husky Boy)

*"A pleasant countenance is no slight advantage."*

Ulverton, Que., 1891. Kingsey Model School. President of House Committee.—Animal Husbandry.

□ □ □

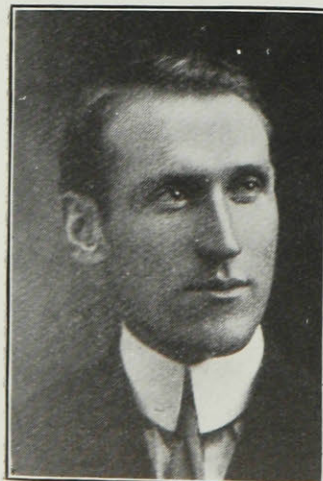


WINFRED G. MACDOUGALL. (Mac)

*"Ever and anon a breeze arises; and he gives vent to words."*

Tatehurst, 1892. Ormstown Academy. College Football Team.—General Course.

□ □ □



W. LAURIE MACFARLANE (Mac)

*"Cares not a pin what they said or may say."*

Fox Harbor, N.S. Graduate of Truro Agricultural College. Winner of Premier Murray Live Stock Judging Cup, 1911. Chicago Judging Team. President of Animal Husbandry Club.—Animal Husbandry.



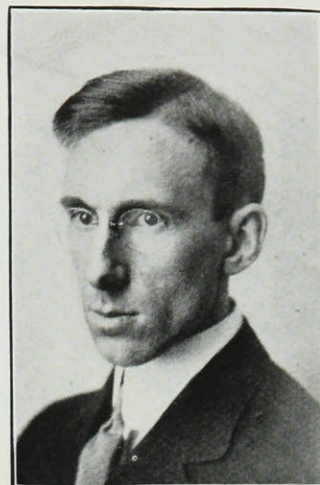
## G. GORDON MOE (Timothy)

*"Quiet in harness, free from serious vice.  
His faults are not particularly shady."*

Franklin Centre, Que., 1889.

Schools of Huntingdon Co. President of  
Y.M.C.A.—Cereal Husbandry.

□ □ □



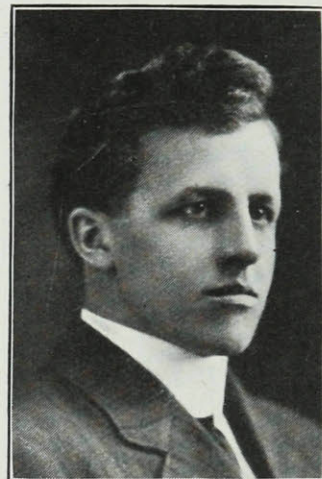
## GEORGE W. MUIR.

*"I'll put a girdle round the earth in forty  
minutes."*

St. Laurent, Que., 1890.

Montreal Public Schools. President of  
Athletic Society. Track Team. Chicago  
Live Stock Judging Team. President of  
Class in 3rd year.—Animal Husbandry.

□ □ □



## WILLIAM NEWTON (Bill)

*"Dearly do I love the gentle rough house."*

Montreal, 1893.

Plaisance High School. MAGAZINE Board.  
—Cereal Husbandry.

□ □ □



## B. TREHNOLME REED (B.T.)

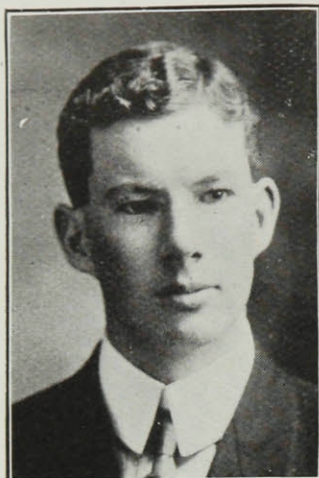
*"When humanity begins to think, it stops  
having fun."*

Ulverton, Que., 1892.

St. Francis College, Richmond. Editor of  
M.C.MAGAZINE, 1913.—Cereal Husbandry.







## T. FRED RITCHIE

*"Full of careful business are his looks."*

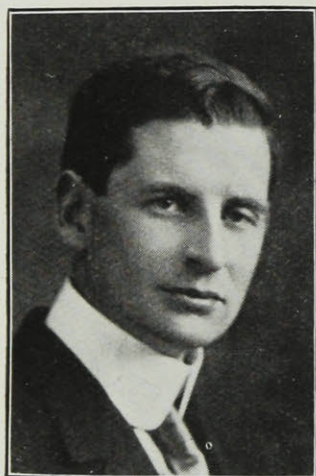
Bryson, Que., 1888.

Bryson and Eardley Townships Schools.

Business Manager M. C. MAGAZINE, 1913.

—Horticulture.

□ □ □



## J. HUGH ROSS.

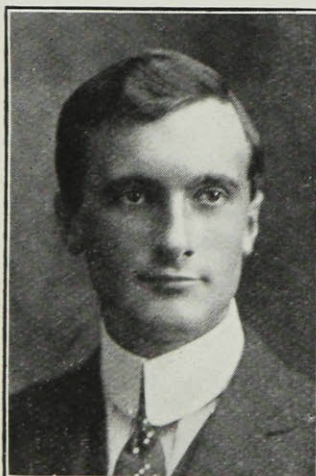
*"He above the rest in shape and gesture  
proudly eminent stood like a tower."*

River John, N.S., 1888.

Graduate of Truro Agricultural College.—

Animal Husbandry.

□ □ □



## A. OTTO SCHAFHEITLIN (Schaf.)

*"One of the few immortal names that were  
not born to die."*

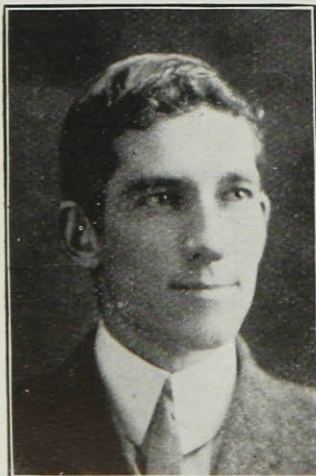
Berlin, Germany, 1893.

Montreal High School, Truro Agricultural

College. President M. C. Lit. College

Debator. Basketball Team.—Horticulture.

□ □ □



## CHARLES J. WILCOX (Cox)

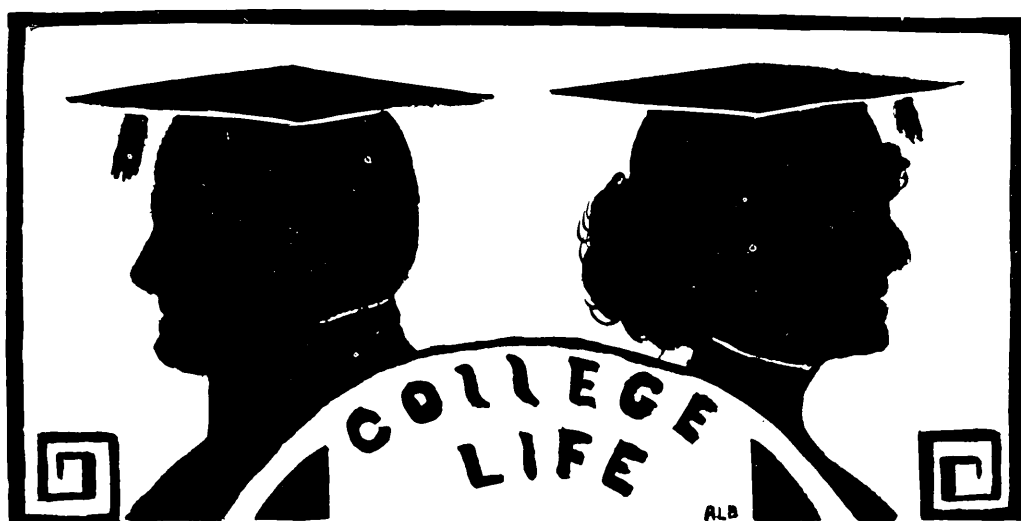
*"An honourable man, so are they all, all  
honourable men."*

Stanstead, Que., 1889.

Newport Academy and Stanstead College.

College Basketball Team three years.—

General Course.



### SOPHOMORE VS. FRESHMEN DEBATE.

The Second year met the Freshmen in the second of the inter-year series on March 12th.

Socialism was the subject under discussion, the resolution reading that "the adoption of Socialism in Canada would be of economic advantage to the nation."

Mr. H. C. Lemoine of the Sophomore class opened with a speech in favour of the resolution in which he made a survey of the existing economic situation in Canada. He contended that the uneven distribution of wealth with consequent evils was the most striking feature of the present social system. A further point was that competition, food combines and private ownership make it impossible for the masses to improve their condition. Co-operation as one of the fundamental tenets of the Socialistic creed was proposed as the cure for the evils under the present system of production and distribution.

Mr. G. A. Wallace, representing the Freshmen, opened for the negative. His speech was largely destructive of the previous speaker's arguments. He maintained that the inherent weakness of human nature made the perfect social system an impossibility; that the Socialists have no definite concrete policy; that Socialists cannot agree among them-

selves and that Socialistic ideals are incompatible with nature, for men are fundamentally unequal.

In continuing the argument for the affirmative Mr. George Hay told of the record of Socialism in other countries, particularly certain European nations; of the advances made by the party in America, and compared conditions in Canada with those in Germany, with reference to control of railways, trusts and co-operative societies, stating in conclusion that lack of co-operation is the cause of the high cost of living.

A. R. Milne continued by pointing out that public ownership—advocated by Socialists—was a failure, and gave instances in support of the statement. Further instances were brought forward in support of the claim that corruption could not be kept out of Socialistic government. He closed by stating that Socialism was a theoretical policy and said that the present system would work out its own salvation.

The meeting was honoured by the presence of President Creelman, of Guelph, for a short time. Dr. Creelman captivated the assembly with his good humour in a short speech in which he conveyed greetings from the O. A. C.

Professor Klinck, as chairman of the judges committee, pronounced verdict in favour of the affirmative.



### A PLEASANT AFTERNOON.

One sunny morning Section "A" were dreaming, as usual, over their Algebra, when they were aroused to the realities and pleasures of life by an invitation from Miss Robins to go tobogganing that afternoon.

As the slide was some distance away, we set out at four o'clock, equipped with snowshoes, toboggans and cameras, resolved to have a good tramp.

The time passed pleasantly, with chattering, snap-shots and a few tumbles to enliven "quiet" Section "A".

On our way to the hill we passed through a grove, and noticed near the horizon the beginning of a grand sunset.



Section "A" Gazing at the Sunset.

After some time we reached our destination, and for an hour we enjoyed ourselves trying to out-distance each other on the toboggan.

Having tired of this sport, and being anxious to resume our snowshoeing, we decided to begin our homeward tramp.

Again we passed through the grove; but the sunset which we had before observed had increased so much that we stood speechless contemplating it. For some moments we gazed at this spectacle, then once more resumed our course.

The homeward journey seemed much longer than we had thought it would be,

for hunger as well as fatigue was beginning to play on our feelings.

At length, however, we reached the College buildings; and as we hurriedly entered the dining-room, we all agreed that we had spent a very enjoyable afternoon, thanks to the kindness of Miss Robins.

M. C. C., '14.

### THE SCIENCE RECEPTION.

The Annual Science Reception was held on Friday evening, February 20th, after the inter-collegiate debate. Very delightful music was provided by Miss Rollins and Miss Portray, while Miss Irene Moore furnished the music for the promenades. Refreshments were served and the evening closed with the singing of the college songs, and "Auld Lang Syne."

B. MAC.

### Y. M. C. A. NOTES.

There have been four Sing-Songs held during the last two months, at which we had excellent music, both vocal and instrumental. Mr. Stanton gave splendid selections on the organ, which were greatly appreciated by large audiences.

On Sunday morning, March 1st, the whole student body had the pleasure of hearing Mr. Jones give his report on the Kansas City Convention. He was assisted by Mr. A. E. Corbett of McGill Y. M. C. A.

Mr. Jones was very enthusiastic over the excellent way in which they were treated while in Kansas City.

In the course of his report, he pointed out the fact that "Now was the opportune time to present the Christ of our religion to the followers of Islam," and that "It is now possible to address

meetings in different parts of the world, where, only four years ago, it was certain death to do so."

Mr. Corbett dwelt on the wonderful effects that were produced by prayer during the convention.

The association is still fortunate in having addresses from members of the staff and others. On February 8th, the speaker was Dean Sinclair Laird, who spoke on "The Relation of the Church to the Country."

On February 15th, Rev. Mr. Lancaster spoke on "The Characteristics of Our Religion."

On March 15th, Mr. Lee, of the Immigration Branch of the Y. M. C. A., spoke on "The Immigration Problem of Canada."

On Sunday, March 22nd, Mr. Lee was again with us and spoke to the whole student body in the Assembly Hall. He spoke on "The Challenge of the Stranger," and showed that down deep in the foreigner the heart-beat was as warm and tender as our own; that the Canada of the Future depended on how we, as individual Canadians, did our duty to the foreigner.

#### HOME ECONOMICS CLUB.

The Home Economics Club met for a social evening in the large reception room, Wednesday, February 4th. The object of this meeting was to enable the Senior and One-year Science girls to become better acquainted with the new Short Course students. Miss de Villiers gave a delightful piano solo; Miss Edith Findlay sang; and Miss Carlyle read some clever verses in which the names of most of the Science girls were introduced.

The evening passed all too quickly, and was conceded by all to have been a most enjoyable one.

B. MAC.

#### SNOW-SHOE TRAMP OF STUDENTS' COUNCIL.

##### Chapter I.

1. 'Twas Friday of the month and the thirteenth day of March.

2. And it came to pass that on that day, with fortune in their favour, the Students' Council, that austere and august body, did gather themselves together for a jolly social hour with that popular winter pastime—snow-shoeing.

3. Now this event for precedent had absolutely none, in all the seven years of the reign of Macdonald College,—even so the President spake unto his followers.

4. And by reason of this fact, much increase of pleasure did make their cup of joy to overflow.

5. And therefore did the four score minutes seem but all too short a time wherein to fully appreciate a privilege so unique.

6. The paths of those who went led on across still waters, sleeping grasses, crouching snow-drifts,—yea, up the downy carpet to the heights of Isle Perrot, whence they gazed aloft on all the vales beneath, remaining long to dwell upon the goal of their return.

7. The sixth hour was now drawing nigh, and when this thing was noised abroad among the happy crowd, reluctantly they made descent unto the plains below. Selah.



8. But it came to pass that the gentlemen had planned a nice surprise of very attractive luxuries for the end of the homeward course.

9. At a special table they had arranged to have served a very tempting menu—even one that would do credit to a Household Science graduate.

10. "Behold, was famine in this land?" an observer might have remarked,

room, bearing with them the carnations and the fern.

13. And straightway they indulged in cheering, and eventually the singing of "Auld Lang Syne" (pitched, alas! just too high for them), all mutually agreeing upon the pleasure of their snow-shoe tramp and the general success thereof,—adding that therein lay much justification for the disobedience of the prover-



Student Council Tramp. A Critical Moment.

but the tramp was energetic and brisk, and hunger was the effect thereof.

11. And when they had eaten and enjoyed, he who was the father of mercies spake saying many things, but chief among them this, "Great is the uniqueness of this occasion," and forthwith many toasts were drunk.

12. And it did finally come to pass that they departed out of the dining-

room, bearing with them the carnations and the fern.

(P.S.—Some members had their cameras  
For pictures by the way,  
But whether their secrets may be  
revealed,  
Is not for the scribe to say).

M. M., T. '14.

## BEFORE THE MASQUERADE.

Macdonald College, Que.

March 20, 1914.

DEAR BROTHER,

We had supper at half-past five to-night, so now I have a little while to write before getting ready for the masquerade. You cannot possibly imagine how excited every one is about it. As you will remember, our December dance was spoiled by the scarlet bug and we had an idea that something might happen this time.

It is such a comforting feeling that the responsibility is not on our shoulders this time, but the poor boys have all the burden. I know it will be a wonderful affair. I will write you when it is all over.

These last few days no one has thought of anything but, "what shall I wear?" or "who on earth will ask me for supper?" These are the two most important topics of the day. It's dreadful for us girls, we are so dependent. I don't believe the vote would help in such a case either.

I know what some of the boys are wearing as one of the girls in our corridor was busy sewing a piece of a man's costume to-day, and it seemed very complicated indeed. Then, last Monday, I saw two boys down in the village buying checked gingham for dominoes, I presume.

We have to wear masks, but I'm sure it must be rather the ostrich idea because most people's chins are recognizable.

Last night we had the greatest time. The excitement has been gradually working up to boiling point, and when someone suggested a dress parade it was eagerly taken up. Costumes were donned at ten o'clock, and even long before the appointed hour, muffled shrieks

were heard in the corridors as the girls flew in to consult each other on some very solemn point, or to borrow some paint or court plaster. The gong had hardly sounded before the halls were filled with fleeting figures clad in gay colors. Shouts and cheers greeted some and "how sweet you look" met others.

A number of the girls, who are not going to-night, went up to the gymnasium to see the fun, and they certainly saw some very ludicrous costumes and other intricate gowns, representing state-ly old-fashioned ladies, who were doing cake-walks and Highland flings. Japanese ladies were waltzing around with Indian squaws, minus paint and beads and other much coveted accessories only to be donned at the big event to-night. After the grand march, some one played a waltz and a two-step, then, after a few other strenuous steps, every one went back to their rooms, much too excited to sleep. There are lots of girls out from town now, and we don't know where they are going to sleep.

To-day, every body has been running around, not knowing whether she is on her head or her heels. How soon it will all be over! and then to-morrow—the morning after the night before—luckily Saturday.

I wish you could be here. But I must stop as I have to get ready and anyway I am far too excited to sit still another minute.

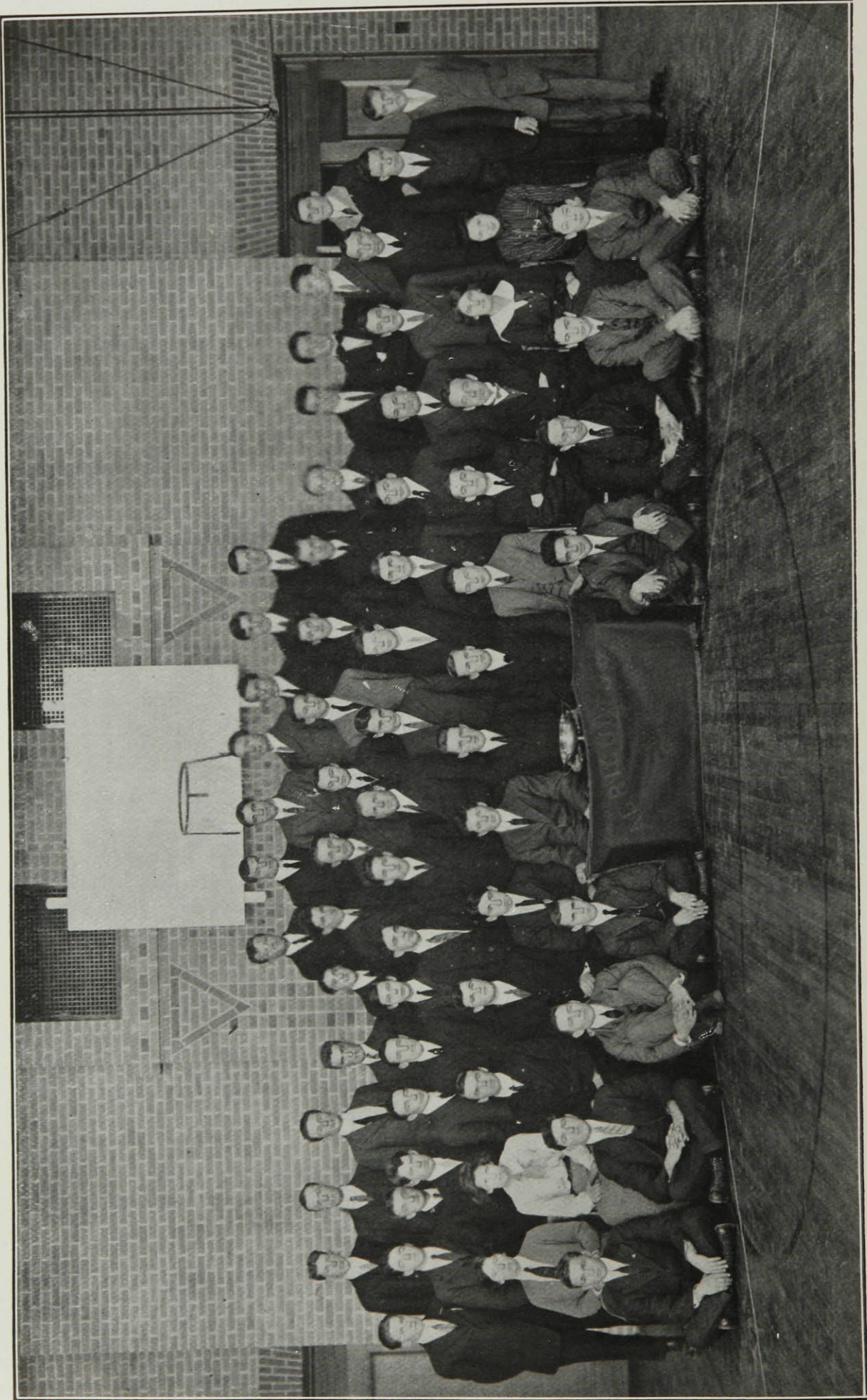
Your loving,

SISTER.

## THAT TIE CONTEST.

All was quietness except for the patter of little feet as the girls walked from drawer to drawer and from cupboard to cupboard; and our friends from over the campus gathered in the alcove waiting for the tinkling sound which announced that we were to draw





AGRICULTURE '17.



around the festive board; when, suddenly, a pathetic face appeared and a wee small voice from the door-way said, "Say, Mud, can you give me anything bright to wear?" Mud, for such is the name of her next door neighbor, immediately became buried in her bottom drawer; and from thence at length emerged with a bright blue affair termed a blouse, and presented it along with a green tie to "Pet," who departed in ecstasy; but who soon appeared again in distress, because grey, blue, green and red were not sufficient for her fastidious taste.

We had again proceeded with "Froebel's Education of Man," when we were once more disturbed by "Awkward," who seemed to think that her beauties and graces demanded something more than a white waist, brown skirt and pink bow; so, after looking through every drawer, trunk, cupboard and box in the whole corridor, she finally discovered a beautifully subdued tie of red, yellow, blue, green and orange plaid, which enhanced her charms to such an extent that we other poor mortals were quite outshone.

In the meantime, we were arrested by sounds of riot, which proceeded from a room not far off; and rushing to the scene of the disturbance, imagine our surprise and dismay when we found our "Mother" surrounded by upturned boxes, from which we could get glimpses of blues, greens, pinks, reds, purples and yellows in unruly confusion, and robed in her grandest in two shades of brown, a red tie and pink bow on her hair.

Soon the bell rang and we descended to the dining-hall, where others also artistically gowned were awaiting us, feeling quite victorious and proud of our aid to the three members of our family who were dressed in such tasteful and bright costumes; but, before long, our

hopes were dashed to the ground, for the door opened, and in walked a vision, such as eye has never seen, in a white vest and artistic green bow, which quite eclipsed even "Pet's" green tie in shade and quantity, as well as in its mode of standing out firm and strong.

We had no sooner recovered from the grace and beauty of this spectacle, than a second took its place, this time more subdued and quiet, but still quite pleasing in its modesty and sobriety; but the last entry which took place was most impressive of all, for the color scheme was most charming and brilliant; and drew the attraction of the whole assembly, some of whom were so overcome with the glorious effect, that their emotions took the form of heart trouble and color blindness. The special features of the riot of color worn by the bearer were the beautiful and original necktie and handkerchief which he wore as he made his triumphant entry into the scene of festivities. Soon all these freaks of fashion were gathered around one festive board, happy and contented. Contributions had provided a box of chocolates for the person who was, in the opinion of the assembly, guilty of wearing the most outlandish and barbaric colors procurable on this occasion. After a vote had been taken by this most august body, it was found that the last person to enter the room had won the prize. Needless to say congratulations were showered upon the winner, who became quite foolish with emotion and distributed his hard earned chocolates to the other fair participants of the occasion. W. P., T. '14

#### CLASS '17 LITERARY SOCIETY.

On the evening of March 9th, Class '17 Literary Society held their fourth class debate. This debate, which was much delayed, first because of the

closing of the college last December due to scarlet fever, and again in February because of the difficulty of getting an audience while skating was to be had on the rink, was on the subject: "Resolved: That Women should have the vote in so far as it is or may be extended to Women." The speakers for the evening were Miss H. Portray and Mr. E. G. B. Reid for the affirmative with Messrs. Gillespie and T. G. Hetherington for the negative, and the fact that a lady was speaking for the affirmative side on such a subject greatly increased the interest of the audience. Mr. Boving and Mr. Raymond kindly consented to act as judges on this occasion.

The debate was very interesting throughout, the affirmative maintaining that women were vitally interested in many questions of to-day, particularly social ones, and that if they had a voice in the government of a country they could at least better conditions. They also claimed that as women had taken their place in many professions and business affairs they could also successfully take part in politics. The negative, on the other hand, held that woman's place was in the home, and more could be done here by conscientious work than by voting at the poll; also, that if women mixed in politics they would lose many of the finer qualities they now possess, and as a result would lose much of their refining influence over men.

While the judges were absent considering their decision, Mr. De Zouche gave a recitation from Robt. W. Service entitled "The Cremation of Sam McGee," which was followed by "A Fish Tale" rendered by Miss Broad, which fairly bristled with scientific and technical terms so blended together as to form some very amusing verses. Both of these recitations were much appreciated.

The judges having returned, Mr. Raymond gave a personal criticism of each speaker, which if accepted in the same spirit as it was given will do much to help on those who wish to become good public speakers, which object it is the aim of the Society to assist. Mr. Boving then gave the judge's decision in favor of the affirmative, owing to the stronger arguments they put up, and the meeting then adjourned.

A. R. M. '17.

#### MACDONALD COLLEGE LITERARY AND DEBATING SOCIETY.

On Monday, March 16th, the above society held its meeting. The programme consisted of a solo by Miss Findlay, accompanist, Miss Tait, and a piano solo by Miss Portray. The main part of the programme consisted of a Public Speaking Contest.

Mr. Huestis was the first contestant and spoke on "Beef Raising in Alberta." He dealt with this subject in a pleasing manner and held the attention of his hearers throughout his speech.

Mr. Dougall was the second speaker, and took "Bugless Milk" as his subject. He dealt with this popular and important subject in a thorough and, albeit, scientific manner.

Mr. Milne was the third contestant. He dealt with the fruitful argument "The Increased Cost of Living." He placed the blame on the middleman, instead of dealing with the consumer with his injudicious buying.

Mr. L. McOuat was the fourth speaker and spoke on "Co-operation in Underdrainage." He showed that by co-operation the cost of ditch digging was reduced fifty percent, and that for this reason alone the farmers should co-operate in underdrainage work.

The judges, Prof. Barton, Mr. Summerly and Mr. Raymond, then retired,



and when they returned Prof. Barton rendered the decision. Before doing so he gave a very beneficial criticism, which dealt with the lack of interest shown by the members of the Society, in that they refused to take advantage of the many opportunities offered them for self-improvement along elocutionary and public speaking lines. He also dealt with the various merits and demerits of the various speakers in a most helpful and kindly way. He announced the following prize winners:

1st. Mr. Dougall, Agr. '14.

2nd. Mr. Huestis, Agr. '14.

3rd. Mr. Milne, Agr. '17.

During the absence of the judges an animated discussion took place between certain of the audience as to the validity of some of the arguments advanced by the speakers. This helped to while away the time until the return of the judges who gave their decision as announced above.

#### DR. PERRIN'S ORCHESTRA.

March 27th should be recorded as a memorable musical occasion at Macdonald College. Through the kindness of Dr. Peterson and Dr. Harrison, the Literary Society was able to arrange for a visit of the orchestra of the McGill Conservatorium, with soloists from the same institution, to render a complete programme, under the direction of Dr. H. L. Perrin, the University Professor of Music.

The band consisted of some forty-five performers, led by Mr. S. Brant, complete in all the departments of strings, wind, bass and percussion. It is scarcely necessary to say that the orchestra gave an eminently satisfactory account of itself; its tone quality and balance was admirable; its precision and ensemble were for the most part excellent: its dynamics were delicately graded and

convincing—but the outstanding virtue was its extraordinary accurate intonation, which is seldom excelled by an average band, composed solely of professional players.

Probably the best orchestral number was the "Finlandia" tone-poem, played with an insight and conviction which held the packed audience spellbound throughout.

Dr. Perrin, in addition to his duties as conductor and accompanist, analysed and explained the structure of several of the numbers, in a very helpful and interesting manner.

The vocalists were Miss Lamothe (soprano), Miss Minnie Brophy (mezzo-soprano), and Miss Rollins (contralto), all of whom materially contributed to the success of the evening. The fine violin playing of Mr. Henry Casey augurs well for his future in the musical world. At the close of the concert, Dr. Harrison cordially thanked the principal and orchestra of the Conservatorium for the musical treat they had given us, expressing the hope that such a concert might be an annual event—a hope which we heartily endorse.

#### LA SOCIETE FRANCAISE.

A meeting of the above society was held on Wednesday night, March 18th, in the Men's Residence, with the view of reorganization. Mr. Blondin occupied the chair. A fairly large audience was present, and a keen interest was manifested when the meeting was opened for discussion.

In a few well chosen words Mr. Blondin explained the *raison d'être* of the society, which is to maintain a keener interest in the French language, by means of debates, recitations and literary discourses.

It is the desire of the society to give an opportunity to all those who are

interested in the French language, to avail themselves of this opportunity to perfect and extend their knowledge of the French language.

We regret being so late in organizing, but we hope that at the beginning of the next session this society will be continued on a firmer and more permanent basis.

The officers elected were as follows:

*Honorary Members*.—Mlle Bieler, Dr. MacFarlane.

*President*.—E. U. Blondin, Agr. '14.

*Vice-President*.—J. M. Leclair, Agr. '14.

*Secretary-Treasurer*.—H. C. Lemoine, Agr. '16.

*Committee*.—L. C. Roy, Agr. '17, A. Morrisette, Agr. '17, W. C. Signoret, Agr. '17.

H. R. LEMOINE,

*Sec.*

#### THE RECENT INTERCOLLEGIATE DEBATE.

This year's debate between the Ontario Agricultural College and Macdonald College, held on February 20, at Ste-Anne, was won by the former.

It reminded me somewhat of the old story of the battle between the whale and the elephant; the whale would not come out of the Ontario sea and the elephant got hurt when he stepped into it. In a word, the result was somewhat inconclusive. This was, perhaps, owing not only to the circumstance that one side was arguing for an ideal, always hard to demonstrate, and the other for existing conditions, which in nearly every case can be supported by an appeal to facts, but also to a certain vagueness in the wording of the resolution itself. This vagueness can be shown better by quoting the whole resolution, which

was to the effect. "That it would be in the interests of Canadian Agriculture that more of our Agricultural College graduates take up practical farming as a private enterprise." The word "more" is too indefinite here to base an argument on, and is typical of a class of words that when they creep into resolutions make it hard for both sides to meet on common ground or to come to an issue.

The Ontario Agricultural College was worthily represented by Mr. Knapp and Mr. Sackville, who both made excellent speeches showing careful preparation. Mr. Sackville's speech, with its array of striking figures which rose to a climax in "O.A.C. Oats No. 72," was particularly effective. He and his colleague proved, up to the hilt, that agricultural graduates not engaged in private farming are doing work of the greatest value in Ontario. Our side of the argument was upheld by Mr. Sadler and Mr. Schafheitlein, who on this occasion did not belie their high reputations as debaters. The gist of their argument was that practice is better than precept, a thesis they tried to prove by showing that the work of the agricultural graduate, when he returns to the farm, is complementary to that of the college; that he is necessary as a leader in co-operative schemes and in all movements tending to the improvement of rural life.

Professor W. G. Smith, of Toronto, Mr. H. M. Marler, and the Hon. W. A. Weir, of Montreal, kindly acted as judges. Their decision was, of course, disappointing to friends of the Macdonald team, but, like good sportsmen, they accepted it with calm resignation, and hoped for better luck next time.

Dr. W. D. McF.

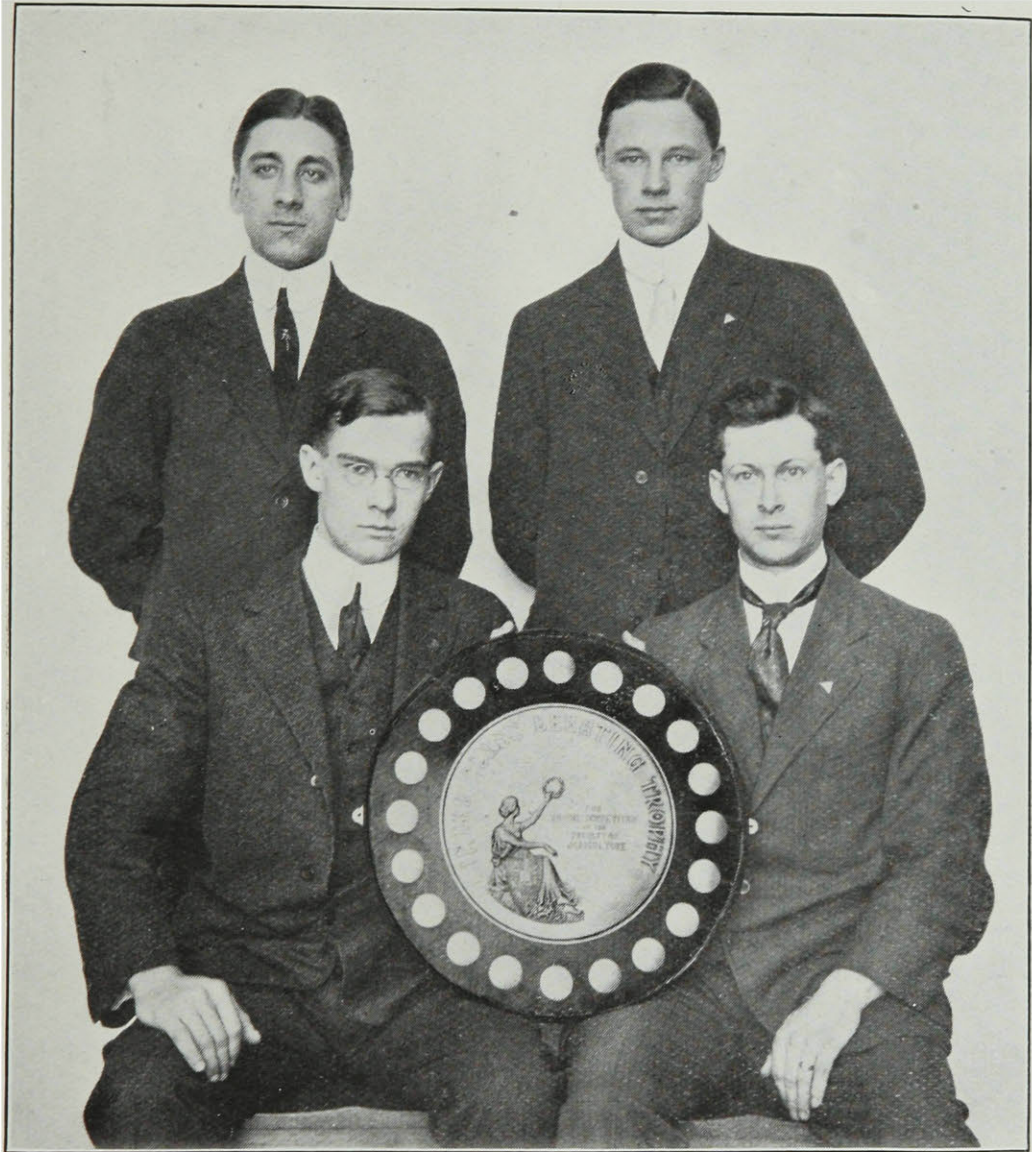
**CHAMPIONSHIP DEBATE.**

It will be remembered that on Nov. 13, the Juniors won their debate against the Seniors; and again on February 12, the Sophomores were the winners against the Freshmen, thus leaving the Juniors and Sophs. the final tussle for the championship of the Inter-class series. This

Sophomores, who chose Messrs. L. R. Jones and L. W. F. Crothers as their representatives.

The affirmative claimed that the country was not assimilating its immigrants, because:—

1. The number of them was far too great.



Sophomore Debating Team—Winners of the Debating Trophy.

took place on Thursday night, April 2, in the Assembly Hall.

The subject of the debate was:— Resolved that Canada cannot assimilate foreign immigration on the present rate of influx without endangering her national welfare. The affirmative was upheld by the Juniors, represented by Messrs. L. J. Westbrook and J. H. McCormick, and the negative by the

2. There was an actual decrease in the number of English-speaking people and an increase in the foreign-speaking ones.

3. There was a very large emigration coincident with the immigration.

4. They were not going where they were needed most, that is, they were going to the cities rather than to the farms. Again they claimed that by the



debates in the House of Commons, the Government seemed to recognize the danger of trying to assimilate these immigrants.

Their second speaker carried this point further by trying to show that not only could Canada not assimilate these immigrants, but that she was actually endangering her welfare by attempting to do so. This he took up under three headings, namely:—

1. PHYSICAL—The introduction and spread of disease, together with bad food and sanitation.

2. MORAL—The lack of home establishment and the prevalence of illiteracy

3. ECONOMIC—The yearly remittances of \$30,000,000, the 72,000 unemployed, and the reduction in wages. Finally he dealt with the relation to home problems, such as school systems, sanitation, social reforms and laws, and the general impossibility of a practical solution to the problem under existing conditions.

The negative showed that:—

1. The problem of assimilation was not the hopeless task some would have us believe.

2. Taking the English nation as an example, they had the power of assimilating other peoples, and further that this process required centuries to be completed.

3. That Canada has forces at her disposal which will hasten this process of assimilation.

4. That the foreigners who came here are above the average in their countries, physically, intellectually and morally; and that it is to Canada's advantage to assimilate them.

5. That Canada can assimilate Europeans, taking as their authorities the Minister of the Interior of Canada and Dean Elliot of Harvard.

The second speaker carefully showed that the immigrants were anxious to be assimilated, and followed by stating that:

1. The majority came with that intention.

2. The condition of the very early immigrant into the United States did not prevent his being assimilated, and compared conditions with the conditions existing now in Canada. He then discussed the sources of the immigration, taking the following ones chiefly:—

1, The British Isles; 2, Scandinavia; 3, Germany; 4, France; 5, Holland and Belgium; 6, Austria; 7, the United States; 8, Russia; 9, Italy. He then stated some important information obtained from the Italian and Greek Consuls, as regards the forms of occupation taken up by the immigrants from these countries.

Next he took up the factors that work for assimilation, what Canada is doing to shelter her immigrants, to encourage immigration and to control immigration. The factors that work for assimilation being:—

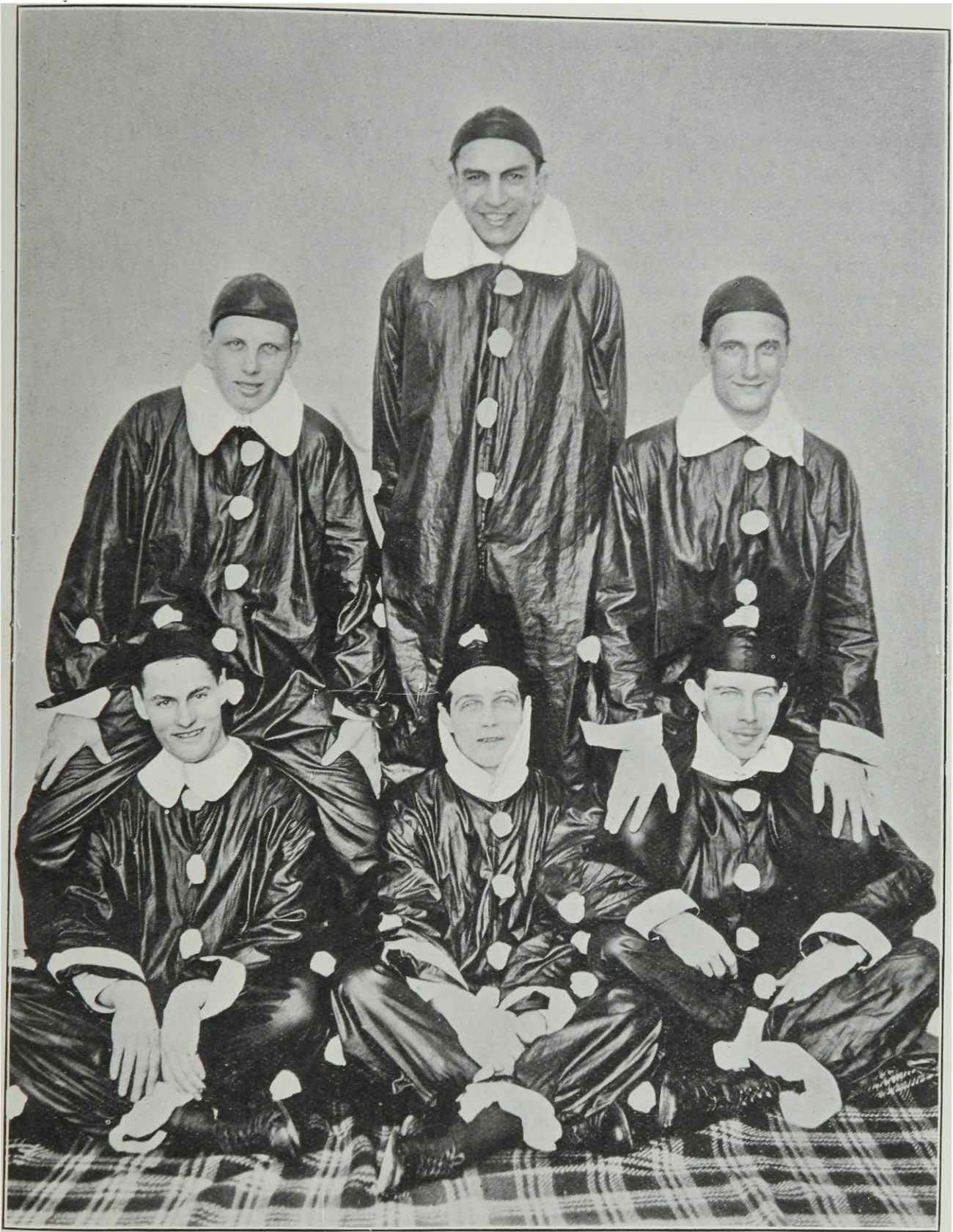
1. EDUCATIONAL—By good school facilities.

2. RELIGIOUS—The work of the Y.M.C.A. and churches.

3. A representative form of Government. He concluded by saying that the 1916 graduates would make things hum in this respect when they got out.

Amid tense anxiety for the debaters and the audience, Prof. Klinck, Prof. Barton and Dr. Lynde, as Judges of the debate, retired to decide on who should be the winners. To relieve this feeling we were favoured with two pieces by the College orchestra, at the end of which the Judges returned. Professor Klinck was spokesman for them, and after a few complimentary remarks to the debaters, declared the negative to be the winners. The shield for the Inter-class Debates was then presented to Mr. L. R. Jones, President of Class '16's Literary Society, amid much applause.

F.L.D. '14.



Memories of the Masquerade—The "Suite" and their Suits.

#### MASQUERADE DANCE.

The Men's Gymnasium presented a very gay scene on Friday evening, March 20th, when the men students entertained at their annual masquerade dance. The gymnasium was effectively decorated with festoons of streamers in the College colours. The moonlight

effects arranged for some of the dances added greatly to the beauty of the scene.

The guests were received by Dr. Harrison, Miss McMillan and Mr. Fiske.

For days previous to the dance there was suppressed excitement in the dining room, and many were the pro-



mises exchanged between the men and women students for numbers on the programme.

Early in the evening the grand march was arranged, after which the orchestra—which was very much appreciated—played for the eighteen dances on the programme.

All nationalities were represented by the dancers. The Dutch boy looked quite at home with his long pipe; Britannia's helmet vied in brilliancy with the jewels of the old time ladies; Little Boy Blue did not look at all sleepy, nor did Bo-Peep look distressed at having lost her sheep; Priscilla and John Alden were partners in the dance while a dusky Indian maid was seen dancing with a cook; Puss in Boots caused a great deal of amusement as did also the clowns who added so much to the fun of the evening.

All who joined in the fun voted the evening a great success and will long remember one of the gayest evenings of the year. F. A. KRUSE.

#### THE CANADIAN PIONEERS.

We are a nation, and we boast  
 A country fair and free;  
 Our fathers placed the landmarks here,  
 When first they crossed the sea.  
 With willing hands and honest hearts;  
 Their purpose to fulfil:  
 To make the fields they tilled their own,  
 They worked with iron will.  
 They came from Severn's flowery meads  
 From many a Highland home,  
 And Erin saw, with sorrowing heart,  
 Her children hither roam.  
 And oft the blackened ocean ships  
 Came struggling up the tide,  
 And left their living cargoes here  
 Along St. Lawrence side.  
 'Mid summer heat and winter snow,  
 Through many a weary year  
 The well-directed woodman's axe  
 Laid hills and valleys bare.

How oft the wild beast missed the  
 haunts

He never missed before!

How oft the wild bird left her nest,  
 And never found it more!

Returning spring new life infused,  
 Where forests fled the plain;  
 And autumn year by year looked forth.  
 On widening fields of grain.

'Twas by their sweat, and not by blood,  
 They won our virgin soil;  
 And we shall still revere their names,—  
 Brave pioneers of toil.

We have no sins of pirate bands  
 To check our hopes with fears:  
 What honest toil procures for man  
 Will stand the test of years.

For Norman blood invigorate  
 Still courses through the veins  
 Of those whose fathers' chivalry  
 Reclaimed Canadian plains.

The plough has turned the war-path up,  
 The wigwam's hearth is cold,  
 And culture decks with flowers and  
 fruits  
 The hunting grounds of old.

Two generations of a race  
 Alike are known to fame  
 As history and tradition span  
 The stream which bears their name.

The first reclaims the wilderness  
 And portions out the soil;  
 The last relinquishes the lands  
 Won by ancestral toil.

Our first have done their duty well,  
 And left a heritage;  
 Oh, may the last lie far beyond  
 A long and glorious age!

We are a nation, and we boast  
 A country fair and free;  
 Our fathers placed the landmarks here,  
 When first they crossed the sea.

MABEL E. BOTHWELL, '11.



**THE O.A.C. DRIVE.**

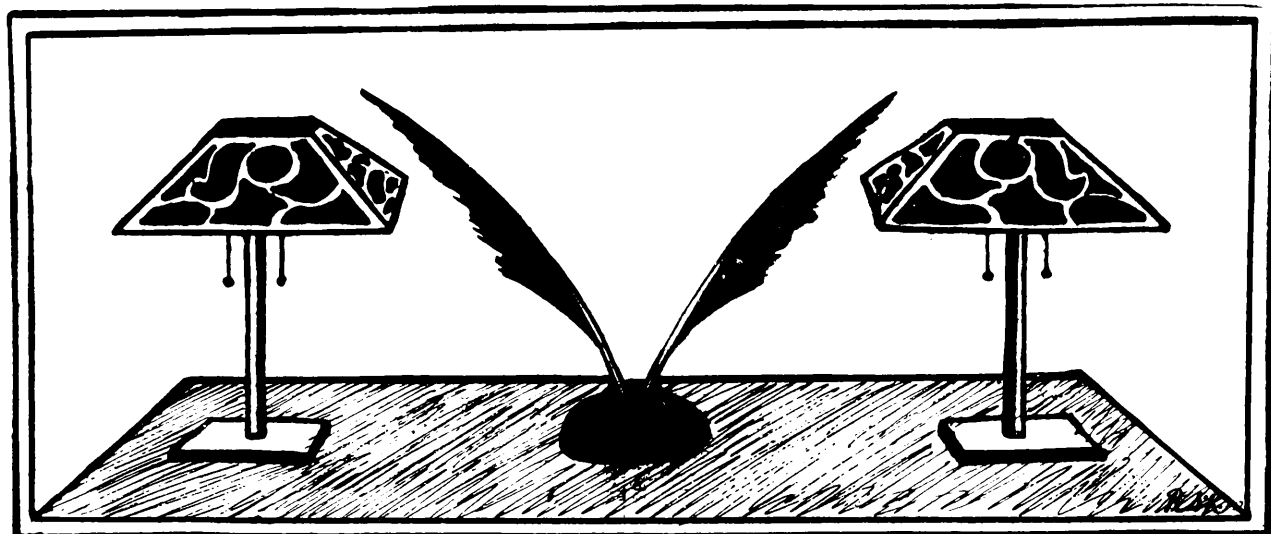
Following the baseball game in the morning with Guelph College it was thought that our O. A. C. friends might appreciate an opportunity of seeing some of the surroundings in which our College is situated. To this end a sleigh drive was planned over a part of the Island. Students and Staff of both Guelph and Macdonald, to the number of twenty-five or thirty, made up two sleigh-loads and started out by way of St. Anne's village. Proceeding through Senneville the party passed the properties of Sir Edward Clouston, Dr. John L. Todd, Mr. R. B. Angus and Senator Forget. Other points of interest were the residence of Thomas Moore, author of the famous "Canadian Boat Song", now occupied by the Bank of Montreal; the fort at Senneville, and the Oka monastery, with

its splendid orchards in the distance. Some persons asked about wine and Oka cheese, but the majority were for returning home, without further investigation. Some of the more hilarious ones found the return too uneventful and proceeded to liven things up by submerging some of their sleigh mates in the snow. This generally resulted in more or less the same process being executed upon themselves. The drive was an enjoyable one, and we trust our O. A. C. friends went away without too bad an impression of the St. Anne's surroundings, not so much from an agricultural point of view, but for its historical interest and aesthetic beauty.

The drive was followed by a social hour provided for us by Miss McMillan which added much to the success of the afternoon's proceedings.



Residence of Moore the Poet—St. Annes.



### OUR AGRICULTURAL DIPLOMA.



THE adoption of a resolution allowing for a course which would enable our agricultural students to obtain a diploma was certainly a step in the right direction.

By its adoption those students who have an A.A. certificate are enabled, by taking a short course in teaching under the direction of the Normal School Authorities, to obtain either an Elementary or a Model Diploma, according to the length of the course they take.

The only factors now needed to make this course a success, are a little time and more publicity. No new proposition such as this is, can be expected to immediately be adopted by those for whom it is intended, before they realize its importance or its benefits.

In discussing the matter with some students we found that there was a surprising lack of knowledge concerning this diploma, but on the other hand we found that a great many indeed thoroughly approved of the scheme and will doubtless take steps to see that it is adopted by themselves.

We have pointed out elsewhere that a revolution is needed in our educational policy and that it should be changed so as to suit the needs of our country

pupils. The plan under discussion must help to solve this in no little degree. What an immense amount of good could be done by our graduates if it were possible for them to teach in our schools, perhaps not as the master in charge in every case, but as an able instructor who could teach subjects of an agricultural nature to our pupils.

We know that there will soon be a demand for such men, and we also know that there are several men in our midst at present who would take such a diploma if the conditions could be made suitable.

Rumour has it, that there is some talk of this motion being rescinded, the plea being that our students do not want it. We cannot believe, however, that any one could be guilty of having a plan put out of existence which has, as yet, hardly seen the light of day. Let us give it an opportunity to become known and appreciated, let us see the results produced by some of those who take the course, before we begin to sweep aside a new project which is as yet in its infancy, but which if allowed to develop is going to produce good results.

Let us all, students and staff, endeavour to give publicity to the matter in such a way that its continuance will be doubly assured by our efforts.

## FAREWELL TO SCIENCE.

Science! We are sad to see you leave our midst. We have seen you daily and heard of your woes and your cheer. You have made us envious with your tales of cookies, cakes, and culinary feats of a startling nature. You have conversed with us at table on topics ranging from poultry feeding to the uses of chiffon, and in lighter moments given us pleasure with your sociability. The men students wish you every success in your undertakings after you leave College. We hope that what you have learned at Macdonald College may help to make life happier and brighter. You can accomplish much good in your community for the uplift of social conditions and the betterment of daily life. We hope that your future may be blessed with happiness, and your efforts to make things better be crowned with success.

□ □ □

We are glad to announce that in the recent Prize Essay competition that the prize of fifty dollars was won by Mr. Ora. C. Hicks of Class '15.

## EXCHANGES.

The following exchanges were received since last issue:—The Argosy, The Review, Agricultural Gazette, Labour Gazette, Maritime Students' Agriculturist, O. A. C. Review, King's College Record, The Alumnus, and the M. A. C. Gazette. Those receiving our magazine will confer a special favour upon us if they will let us know if they do not receive our magazines regularly.

## COMPETITIONS.

We cannot help but feel discouraged at times over the results of the little contests with which the MAGAZINE has endeavoured to stimulate interest in MAGAZINE and at the same time pro-

vide a little excitement for the students of the College.

Photographic competitions have nearly always been a failure, and so have those for short stories for publication in the MAGAZINE.

Of late we have been provided with another instance. We offered a prize, not a valuable one, a year's subscription to our MAGAZINE, for the lady who would guess the names of two persons whose abbreviated pictures appeared in the MAGAZINE. We expected to receive some answers, not because we thought you needed the money, but because we thought you were "sports" and would enter into the spirit of the little contest. How many answers did you send us? Not one answer was received from a lady student in residence. What was the reason? Was it fear of a loss of dignity through accepting such a trivial prize or what was it? To be frank, we were disappointed and discouraged. The insertion of the picture cost about four dollars and failed entirely to accomplish its purpose. But from away down in the Eastern Townships there came one little ray of encouragement. We received from Miss Noble, of the Autumn Short Course, the correct answer to our little puzzle. Think it over, ladies, and reason out why it was that Miss Noble could send an answer from such a distance. We know the reason *now*. It was because she was *interested* in the MAGAZINE. Are you?

## AN APPEAL.

There is now being carried on another contest, which we hope will be productive of better results. We refer to the popularity contest. When this issue appears before our readers we shall know whether it is creating the interest it was intended to create. We hope that the competition has within it enough



of interest to encourage our readers to help bring it to a successful close. The situation has been explained to our students as to the need of support being extended to the MAGAZINE. We believe that now the condition of affairs has been made clear, that our students will rally to our aid. We make an appeal also to our Alumni to send in a subscription to the MAGAZINE. These appeals have been made before. You all know what their nature has been. Their nature is still the same. We need subscriptions because the MAGAZINE cannot accomplish its best without a large circulation. Advertisers will not make use of our pages unless our circulation increases as time goes on. It is becoming harder every day for our advertising manager to secure advertisements for our publication, because the circulation is not big enough.

We cannot increase that circulation unless our Alumni subscribe, for the number of students remains relatively the same. Reader of this page, if you belong to the Alumni of our Alma Mater, whether Science, Teachers or Agriculture, will you not subscribe to our MAGAZINE? If you are a subscriber now, please renew your subscription. Your action or inaction in this matter is a test of your love for, and interest in, your Alma Mater.

Graduates of Macdonald, we appeal to you to DO IT NOW.

□ □ □

We beg leave to announce to our readers, who must be feverishly awaiting the decision of the judges, that in the recent contest, asking for the best title to the cartoon which appeared in our last issue, there was an overwhelming number of entries. After a deliberation of several days our judges, noted for their impartiality and justice, finally gave their decision in favour of the title submitted by Mr. Chas. Russell, Agr.

'15, Mr. Russell came first in a field of . . . competitors. Among other titles were submitted,

.....

We thank our readers for their kind interest and wish them every success in future contests. We forgot. Mr. Russell's title was:—"Love's Labour's Lost."

#### FAREWELL TO TEACHERS.

Teachers of Macdonald, soon you must leave the College in which you have spent many happy months, and from whose instructors you have received so many ideals, so much knowledge and training. Soon you will be called upon to assume one of the most important charges ever given to the workers of this nation. Soon you must begin the duties of a position which, if properly filled, will bring about untold benefit to many of our trusting, hopeful and happy children.

Your success in this all-important work will depend primarily upon yourself. No royal road to success graces the landscape of the profession and no rosy dreams of the future will dissolve the troubles of the first few days.

It is for these "first few days" that a teacher needs stamina, courage, hopefulness, cheerfulness and foresight, to enable her to overcome the unlooked for difficulties which always arise when one assumes a new untried position.

The Magazine wishes to extend to you all the wish that these troubles may be few; that those that do arise may be easily dispelled; that cheerfulness, brightness and happiness may be the lot of yourself and your pupils, and that you may all have as successful a year as it is possible for us to wish you.

We thank you for co-operation during the past session, for your entertainments, your company and your cheer, and once more we say, "Best wishes, good luck, and happy days."

## Y. M. C. A. AND RURAL PROBLEMS.

During the past Session the Executive of the College Y.M.C.A. has embarked upon a policy which may rightly be termed experimental. No one who has followed even in a cursory sense the work of the Young Mens' Christian Associations in Canada, America and Europe would be prepared to say other than that a great and good work has been and is being done.

Granting this, however, our Executive conceived the idea that an Agricultural College presents rather unique opportunities for work in connection with the Y.M.C.A., along lines somewhat different from what may be termed the orthodox policy.

All who are interested in rural problems realize that the Church plays a most important part in the process of bettering conditions in the country districts; but a point that needs to be realized to an equal degree is that a rural Church with an urban policy will as surely fail, as have failed the rural schools dominated and saturated with urban ideas and city points of views.

The policy of the College Y.M.C.A. has been of late directed towards a study of those problems pertaining to country life; and mention is made elsewhere in our columns of the series of addresses delivered by Professor Klinck, on the Rural Church in its relations to the State. With a few exceptions, all the Sunday morning meetings during the Session have dealt with some phase or another of the rural problem, and the interest displayed by the men in residence has justified the line pursued by the Executive of the Association. The addresses given by Dr. Harrison, Prof. Lockhead, Mr. Lee, of the Y.M.C.A. Immigration Dept., Mr. Woodsworth, of the Central Y.M.C.A., and others may be specifically noted.

As agriculturists we think it is legitimate and wise, to bend our energies towards a solution of the problems which so closely affect us at home; and if an enthusiastic interest in the various problems associated with rural life can be awakened and stimulated by the Y.M.C.A. within our midst, the graduates of the College will in the various communities throughout the country be factors of outstanding potency in the remedying of present defects in the rural life of Canada.

It is to be hoped that when the new Session opens, the Y.M.C.A. will, while retaining all the soundness of the old doctrines, not hesitate to attack the problems which are waiting to be solved almost at our very doors; and pursue a policy which shall be broad and up-to-date, and in a general sense in harmony with the special line of work for which residence at Macdonald College technically fits its students.

□ □ □

DEAR MR. EDITOR:—

It is with satisfaction that we note evidences of the beginning of a new era in the life of our rural public schools in Quebec. Right here it may be observed that our own college Magazine should be able to accomplish a good deal in the advancement of agricultural education in so far as it contains the expression of the youth of our Province who feel that their own education in this department was so sadly neglected.

Every student who feels that more of the natural sciences and less, if need be, of the classics and abstruse mathematics would better qualify him to take his place among the progressive rural workers should never lose an opportunity to state his views, either in public or through the press.

The writer lays no claim to a knowledge of what is best in school curricula, but he does know that when he comes to an agricultural college with a matriculation certificate and has to be taught the five parts of a flower and the composition of water that there has been something wrong with his previous education.

But, it may be said, teachers qualified to handle such subjects are not at the present time available in Quebec. This is to a greater or less extent true, and what are our prominent educators doing to remedy the deficiency? Most of the teachers in our rural academies are graduates of McGill, but who ever heard of a knowledge of elementary botany, physics and chemistry being made a necessary qualification in the equipment of such a teacher?

Some improvement in the situation, as far as primary instruction goes, has been made in the transference of the Teachers' Training School from Montreal to Macdonald College, where the facilities for the study of the elementary principles of agriculture are of the best. But even here "Nature Study", as it is termed, is more or less of a second rate subject.

One means for the temporary relief of the situation exists in the granting of rural school diplomas to second or fourth year students in agriculture, as provided for by Dean Sinclair's motion before the Protestant Committee last spring. But already there are rumors of opposition from the "reactionary element" now that Dr. Sinclair has gone. The best that can be done is to give the scheme a fair trial. The same may be said of the local summer schools to which so much animosity was shown by certain prominent educators last summer.

The increasing number of college representatives constitutes a further

means whereby such instruction can be brought into the higher grades in the rural academies. We are sure that the college authorities are only too glad to co-operate in any way possible towards the advancement of agricultural education in the province, if they are given the opportunity.

These brief observations, Mr. Editor, but imperfectly express the opinion of one who wishes that he might have been the possessor of a grounding in the natural sciences, such as is possessed by the matriculants of the agricultural science schools of the West Indies. We feel that you, who have combined a knowledge of rural school conditions obtained at first hand with the agricultural course, are particularly qualified to be our exponent in this important matter through the Macdonald College Magazine.

Yours faithfully,

QUEBEC STUDENT.

□ □ □

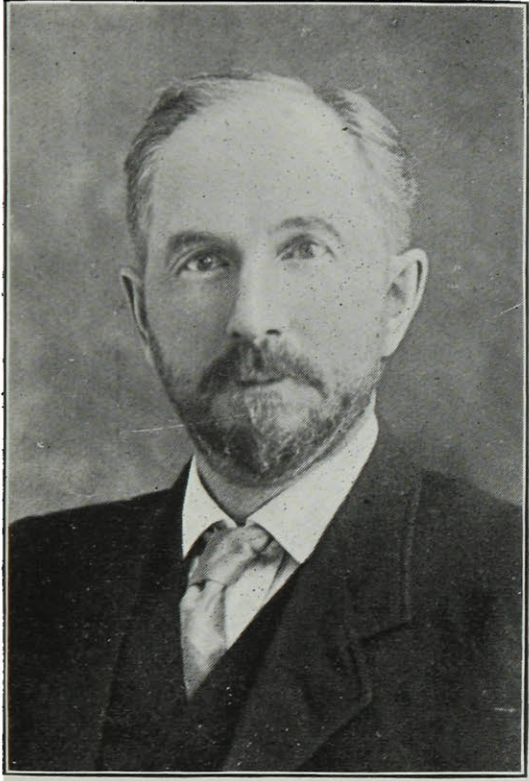
TO THE EDITOR:—

The subject referred to in your communication is very imperfectly taught in the schools of my inspectorate—like the Dutchman's prayers—once a week if there is nothing more important to do. Usually hygiene, temperance, composition, letter writing and agriculture receive a little attention Friday afternoons. In most of my schools the latter is taught by reading a chapter selected, after which a few questions and answers follow.

Some of the teachers, especially the recent graduates of Macdonald College, do a little more—seed germination, sprouting and rooting, the nature of the soil and fertilizing, etc. A few take up some of the essentials to plant life and the different elements required in a perfect soil.



I think perhaps the subject does not receive the proper amount of attention from the school inspectors who might bring it into greater prominence at conferences of teachers and at their annual examinations, by marking it among other subjects which count in the



Insp. A. L. Gilman

standing of the schools and teachers' bonuses.

Then the Macdonald demonstrators might do something by way of lectures in the schools of their vicinity.

It is certainly neglected at present by all country school officials.

INSP. A. LUTHER GILMAN.

□ □ □

TO THE EDITOR,

In considering the recent publication of the McGill Annual, one cannot help but feel the existing relations between

McGill and M. A. C. We know that the students of McGill in Montreal consider M. A. C.—and perhaps it is justifiable—as an affiliated College of our Alma Mater, and hence that it is mere courtesy on their part when we are allowed a section in their Annual. We, on the other hand, are proud to rank ourselves as a *FACULTY* of McGill University; yes, a faculty of the same standing as Medicine, Law, Arts and Science in everything, with the exception of age. Therefore, Mr. Editor, such incidents as not including the Dean of Agriculture with the Deans of the University, the supplying of a little page for our section, and the forwarding of the Annual to the College at least two days after it had been distributed in Montreal, however trivial in themselves, most certainly will not tend to improve these existing relations.

McGill in the past has been pleased to use our men on her football field, track and harrier teams, and not without credit to herself. The only thing to prevent her from using our men in her hockey and swimming teams, and even tennis, soccer, etc., during the coming season will be these strained relations.

McGill cannot be ashamed of us, and it will not be long before she will be proud of us. Why then should this feeling exist? I claim, Mr. Editor, that it is due to ignorance, and ignorance alone; and so would suggest that the McGill Daily, because of its wide circulation among the students, bring about the necessary changes.

Trusting that this will call the attention of the right people to this matter.

Yours truly,

JUNIOR.



#### SCHOOL FOR TEACHERS.

Miss Hazel Ramsdell, Class '13, is now teaching near North Hatley.

Miss E. Seveigny, Class '13, is teaching in the Royal Arthur School, Montreal.

Miss Gladys Buckland, Class '14, is teaching in Ladd's Mills, near Coaticook.

Miss C. Brennand, graduate of Class '13, is teaching in an Academy School, in Waterville.

Miss Florence Cameron, Class '13, is teaching in a school near Ormstown.

Miss Beatrice Clarke, Class '13, is teaching in the Queen's School, Westmount.

Miss Alice Carmichael, Class '14, is teaching in Dewittville.

Miss Katherine McIntosh, Class '13, is teaching in a school with Miss Clara McCrea, in Athelstan.

Miss Rebecca Smilovitz, Class '13, is teaching in the Alexandra School, Montreal.

Miss Elsie Galley and Miss Julia Hurd, both graduates of Class '13, are teaching at Sawyerville.

Miss Laura Kempfer, Class '14, is teaching at Barachois, Gaspé.

Miss Gladys Watson, Class '13, is teaching at the Lansdowne School, Montreal.

Miss Mildred Buckland, Class '13, is teaching at Way's Mills, near Coaticook, her home town.

Miss Dorothy Dunn, Elem. Class '14, has an Elementary school near Shawville.

Miss Elsie Elliott is teaching school in Shawinigan Falls, and reports having an enjoyable year's work.

#### SCHOOL OF HOUSEHOLD SCIENCE.

Miss Euphemia Cameron, Homemakers '13, is spending the winter at her home in East Sherbrooke.

Miss Kathleen Hill, Homemakers '12, of St. Stephen, N.B., was a week-end visitor recently.



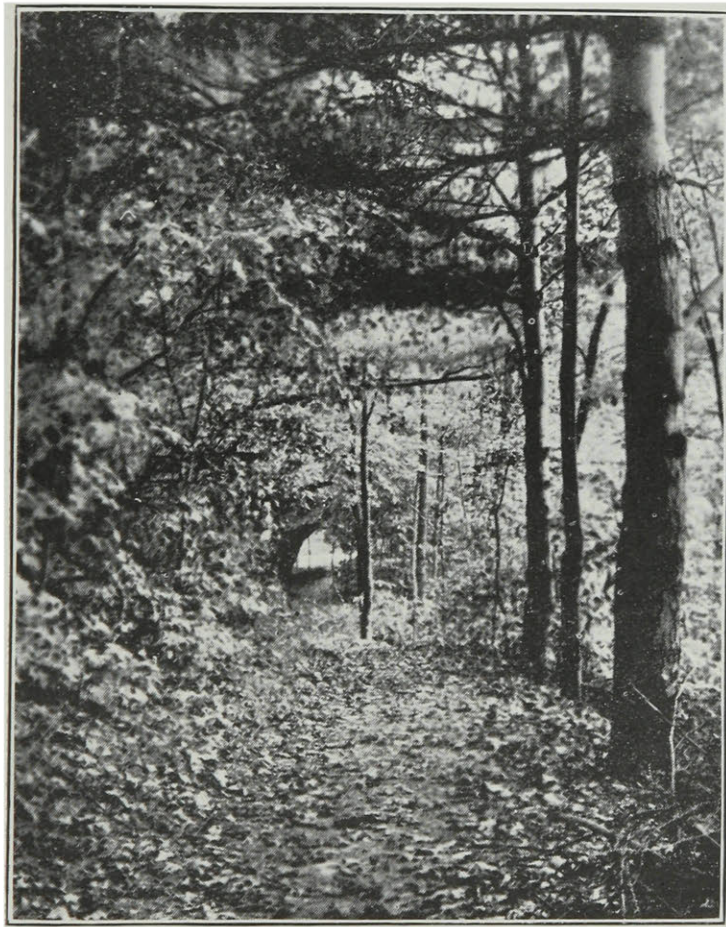
Miss Jessie Church, of the Autumn Short Course '13, is doing settlement work in St. John, New Brunswick. She is also giving lectures in Dietetics, at the General Hospital.

Miss Marjorie Collins, Homemakers '13, paid a flying visit to Macdonald. She has gone abroad, and does not expect to return for a couple of years.

Miss Ethel MacLaren, '13, is travelling on the Continent, and when last heard of was in Sorrento, Italy.

Miss Edith McCuaig, Homemakers '13, is spending the winter in Toronto.

We hear that Miss Laura Macfarlane, '11-'12, has accepted a position in Montreal.



In the Woods.



## Macdonald College Alumni Association.

Mr. and Mrs. Ben Richardson have taken up their residence at Wilton, New Hampshire. Ben is on the extension department of the Agricultural College of that State and is at present carrying on an orchard survey. We wish him success in his new position.

□ □ □

Mr. C. Sweet, who until recently has been the representative of the Dominion Seed Branch for the English-speaking sections of Quebec, has taken up the work of the Seed Branch in Manitoba and Saskatchewan. His new headquarters will be at Regina, Sask. He invites members of the Alumni to call on him whenever opportunity offers.

□ □ □

Lennoxville has lately come into possession of a new Macdonald College Demonstrator in the person of A. F. Emberley, B.S.A. It is expecting a lot but not too much to hope that his success

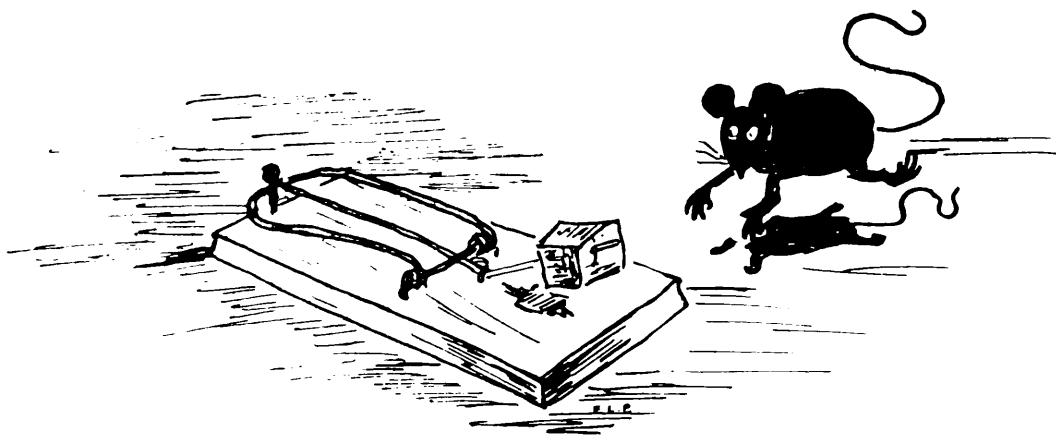
will equal the good work done by his predecessor, Mr. A. A. Campbell.

□ □ □

F. N. Savoie, B.S.A., is probably the only Macdonald College graduate thus far to hold two professorships at the same time. All of this he does with both modesty and efficiency. He is known at the Ste. Anne de Lapocatiere Agricultural School as Professor of Cereal Husbandry and Drainage. Let us hope that Savoie's efforts among French-Canadian Agriculturists may meet with their deserved success.

□ □ □

D. E. Lothian, B.S.A., is Assistant Botanist at the Experimental Farm, Ottawa. He makes a speciality of potato diseases and has done some lecturing on this subject, especially in New Brunswick. It is a matter of rejoicing that "Scotty's" well known oratorical powers may yet prove of value to the country.



THE FAREWELL DINNER.

# List of Agricultural Graduates with Positions and Addresses.

## CLASS '11

W. H. Brittain, Provincial Entomologist, Truro Agricultural College, Truro, N.S.

F. E. Buck, Assistant Horticulturist, Central Experimental Farm, Ottawa, Ont.

R. W. D. Elwell, Box 29, Stoney Plain P.O., Alta.

R. P. Gorham, Assistant Provincial Horticulturist, Department of Agriculture, Fredericton, N.B.

F. S. Grisdale, Agronomist at Agricultural School, Olds, Alta.

F. H. Grindley, Fruit Division, Department of Agriculture, Ottawa, Ont.

R. Innes, Manager of Fertilizer Department, Wm. Davies Co., Toronto, Ont.

W. J. Reid, Instructor in Live Stock and Dairying, Department of Agriculture, Charlottetown, P.E.I.

E. M. Straight, Director of Demonstrations, 161 Ocean Ave., South Portland, Maine.

C. M. Spencer, Victoria Ave., Wanganni, New Zealand.

A. Savage, Veterinary College, Cornell University, Ithaca, N.Y.

R. Summerby, Lecturer in Cereal Husbandry, Macdonald College.

C. Sweet, Representative of Dominion Seed Branch, Regina, Sask.

C. M. Williams, Department of Agriculture, Charlottetown, P.E.I.

G. W. Wood, Assistant in Animal Husbandry, Manitoba College, Winnipeg, Man.

## CLASS '12

W. W. Baird, Superintendent, Nappan, N.S.

F. S. Browne, Assistant Agrostologist, Central Experimental Farm, Ottawa, Ont.

A. A. Campbell, Manager, C. P. R. Farm, Fredericton Jct., N.B.

M. B. Davis, Assistant Horticulturist, Central Experimental Farm, Ottawa, Ont.

C. F. W. Dreher, Assistant Horticulturist, Central Experimental Farm, Ottawa, Ont.

H. B. Durost, Fertilizer and Drainage Advisor, Department of Agriculture, Fredericton, N.B.

K. M. Fiske, Florenceville, N.B.

S. M. Fiske, Florenceville, N.B.

D. B. Flewelling, Department of Agriculture, Fredericton, N.B.

E. A. Lods, Demonstrator for German Potash Syndicate, Truro, N.S.

R. S. Kennedy, Lacombe, Alta.

J. R. N. MacFarlane, 611 Sydenham Ave., Westmount, Que.

Alex. Ness, Assistant in Animal Husbandry, Macdonald College.

R. Newton, Director, Agricultural Schools, Woodstock, N.B.

L. V. Parent, Demonstrator for German Potash Syndicate, 170 Mance Street, Montreal, Que.

E. Rhoades, Assistant Agricultural Editor, "Montreal Herald and Weekly Star," Montreal, Que.

J. G. Robertson, Manager Detchson Farms, Davidson, Sask.

J. M. Robertson, Assistant Horticulturist, Kentville, N.S.

L. C. Raymond, Assistant in Cereal Husbandry, Macdonald College.

J. A. Simard, Representative of Seed Branch, Quebec City, P.Q.

## CLASS '13

J. S. Dash, Assistant Director of Agriculture, Codrington House, Barbadoes, B.W.I.

E. M. Duporte, Assistant in Biology, Macdonald College, P.Q.

A. F. Emberly, Macdonald College Demonstrator, Lennoxville, P.Q.

W. D. Ford, Macdonald College Demonstrator, Huntingdon, P.Q.

W. H. Gibson, Macdonald College Demonstrator, Richmond, P.Q.

A. C. Gorman, Assistant in Horticulture, Macdonald College, P.Q.

G. C. Halliday, Sawyerville, P.Q.

M. H. Jenkins, Ottawa, Ont.

J. K. King, Macdonald College Demonstrator, Shawville, P.Q.

D. E. Lothian, Assistant in Botanical Division, Central Experimental Farm, Ottawa, Ont.

G. LeLacheur, Dominion Seed Branch, Ottawa, Ont.

V. Matthews, Dominion Experimental Farm, Lethbridge, Alta.

K. MacBean, Dominion Experimental Farm, Indian Head, Sask.

L. D. McClintock, Macdonald College Demonstrator, Cownsville, P. Q.

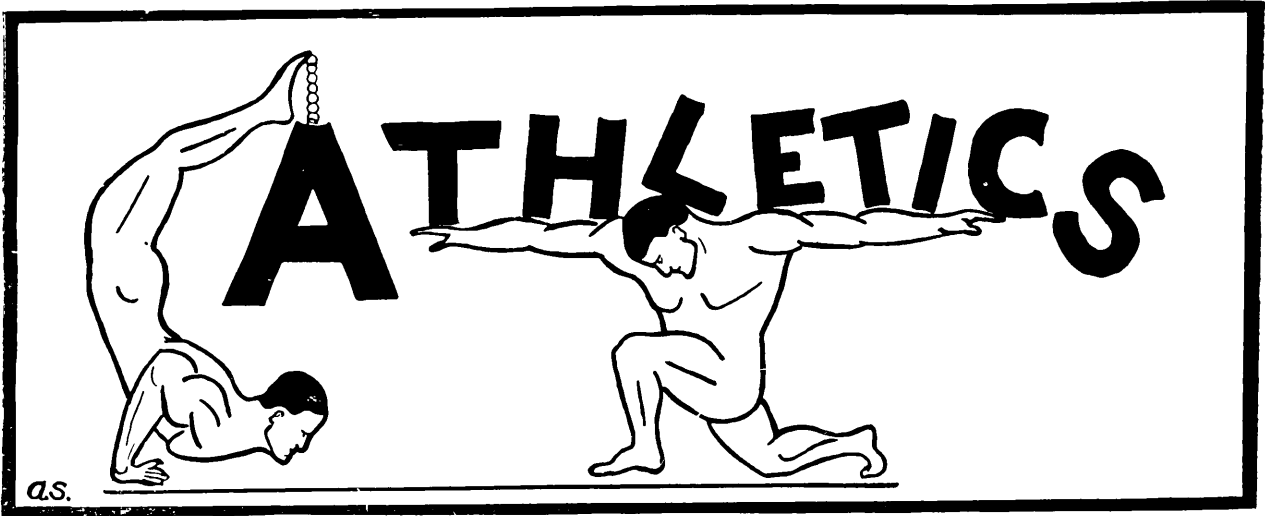
W. A. Middleton, Thomson Chemical Co., Baltimore, Md.

G. E. O'Brien, Editor of "Nova Scotian," Chronicle Publishing Co., Halifax, N.S.

A. E. Raymond, Macdonald College Demonstrator, Cookshire, P.Q.

B. B. Richardson, Wilton, New Hampshire.

F. N. Savoie, Prof. of Cereal Husbandry, St. Anne de Lapocatiere, P.Q.



THE athletic season is drawing to a close, the spectre of exams approaches, and once more we take up the pen to chronicle our successes and reverses in the realm of sport. The past season has certainly been a successful one, despite the fact that the advent of the scarlet fever germ in our midst at the beginning of December somewhat upset and curtailed the proposed schedules. Especially was this so in the case of the inter-class games, with the result that there are at the time of writing, still three more games to be played in this series. The success of college athletics depends on there being a widespread and enthusiastic participation in sport throughout the whole college. Participation in athletics should not be confined only to those fellows who have a chance of making the teams. Each individual should consider it as much a part of his college course, to prepare himself physically, as well as mentally, for the future struggle of life. There has been a very universal enthusiasm for athletics evident among the fellows during the last year, and too much praise cannot be given to the efforts of our athletic committee in stimulating so healthy an interest. The inter-class games do much to encourage enthusiasm and to bring all likely players into the different games.

The hockey, baseball, and basketball teams have all done well during the last year in upholding the honour and reputation of Macdonald in the field of sport. Our thanks are especially due to the managers of the respective teams, Messrs. Clement, Summerby, and Ness, for the energetic and thorough way in which they have done their work.

The event of the year has of course been the Guelph meet. It was held this year at Macdonald, and scenes of wild enthusiasm took place at every game. There is little wonder at this, for rarely have such exciting or closely fought games been contested in the annals of the college. We were somewhat unlucky in losing the hockey in an overtime play. The teams were evenly matched, although the Guelph boys were a little superior to us in the matter of weight, a very influential factor in any hockey game. The basket ball and base ball games were won more by the grit and sticking powers of our boys than anything else. In both these games, and especially in the baseball, Guelph led by a somewhat wide margin at the start, and the results of these games were a very evident proof of the power of determination to win under competent leadership. A word of praise should not be omitted for Mr. L. C. McQuat, who, although not an active participant in the games himself, was



the leader and binding force of the "rooting" organization. His stentorian and fog-horn like voice would doubtless awaken the dead, and the efforts of his organization did much to rally our fellows and give them that stimulus which eventually resulted in victory. Our sincere thanks are also due to the girls,

as successful a series again with them next year.

By the time of publication the inter-class games will in all probability be completed. There is little doubt, however, now about the ultimate result. The Senior year has already four wins to its credit, and we have to congratulate



Macdonald Hockey Team.

whose efforts in this direction were, to say the least of it, magnificent.

The meet was in every way a great success. Good clean sportmanship was the rule throughout, and we only hope that the series was as satisfactory to the Guelph boys as it was to us. We thoroughly enjoyed their visit, and only hope that we shall be able to arrange

them on maintaining their athletic as well as their intellectual superiority over the Junior years.

#### HOCKEY.

Macdonald usually produces a good hockey team and this year was no exception to the rule. Unfortunately, however, despite the efforts of Mr. Clement,

it was only found possible to play two games, one being with the O. A. C. and the other against a scratch team from Montreal. To chronicle that we lost both of these is to cast no aspersion upon the ability of our team. We put up an excellent fight against the O. A. C. and with a little more weight might have carried the day. Unfortunately there were not enough games to justify any criticism of the team, but the game with O. A. C. indicated without doubt that we have plenty of promising material. Climatic conditions are to some extent responsible for the lack of games this season, and this goes to emphasize the necessity of a covered rink before a properly organized hockey schedule can be carried out. The possibilities of securing sufficient money to erect a covered rink have never been fully discussed, and a plan is doubtless worthy of consideration whereby this might be accomplished in the future.

#### THE O. A. C.—M. A. C. GAME.

Hockey was the first game of the series and was played on the afternoon of February 20th. The day was fine and the ice hard and in excellent condition.

The teams were evenly matched, and the game strenuously contested throughout the eighty minutes of play.

The first half played under Quebec rules, resulted in no score. Checking was close, and the play fairly fast, but little or no combination was used by either side. Early in the second half, which was played under O. A. C. rules, Hyndman went through the visitors defence, and judging his shot well, scored for Macdonald. Herder evened the score shortly after with a shot from the left wing, but Hyndman again went through with a long rush and made it 2—1 for the College. This should

have clinched the game, but with only thirty seconds yet to go, Agar evened up, making the score 2 all. Ten minutes overtime resulted in no score. It was decided to play another ten minutes, and this time Oswald scored for the visitors. This score remained unchanged to the end, O. A. C. winning after a hard fought game by 3—2.

For O. A. C. Oswald was without doubt the most aggressive player. Agar proved himself to be a good stick handler, while Keaty showed some flashes of speed.

For the college, Hyndman in scoring twice deserves special credit. Huestis and Maskery played good individual games, but the whole team lacked in combination though they worked hard the whole time.

Messrs. Clement and Squirrel acted as referees and handled the game well.

The line up was as follows:—

O.A.C.	Macdonald.
Dustan	Fraser
Herder	Hyndman
Donaldson	Maskery
Vair	Hand
Oswald	Skinner
Keaty	Roy
Agar	Huestis

Timekeeper—Mr. Ness.

#### BASKET BALL.

There has always been much enthusiasm manifested in basket ball at the college, and the Guelph meet this year stimulated it to a higher pitch than ever. Consequently our team has done well, and we have every reason to be proud of them. At the beginning of the season we entered the inter-provincial Y.M.C.A. League, which included Railroad, North Branch and McGill teams. Some good games resulted, and we eventually finished third. Unfortunately at the time



of going to press the final results of these games have not been obtained, so that publication in this number will be impossible. Our thanks are due to Mr. Ness, who since Xmas, has acted again as coach and manager of the team.

for Guelph, soon evened up, and by half-time the visitors were leading 17-12. Our boys came back for the second half looking fresher and in better condition than Guelph. Wilcox and Hyndman then got to work in earnest and gradually



First Basket-Ball Team.

The O. A. C.--M. A. C. game was, if anything, the best and closest game of the series. Hyndman scored a few minutes after the start and things began to look promising. Munro, however,

the score evened up. The latter was playing a great game and was especially sure in connecting with the baskets. Till within a minute of the end the score stood 24—24, then came the climax. A double foul was given, Guelph failed



JUNIOR TEAM.

and Hyndman scored. Ten seconds after the whistle blew thus ending one of the closest games ever fought on the college floor.

Guelph played a superior passing game to our boys, but seemed weak in connecting with the baskets. Individually Munro was the most outstanding player. He played a fast sure game, but the gym seemed a little too small for him.

The second basket ball team has completed a successful season and finished second in the Junior Y.M.C.A. league.

The following men composed the team.

Russell	}	Forwards
Skinner		
Hand		
Jones	}	Centre
Fraser		Defence



Macdonald Football Team

For M.A.C., Hyndman played the game of the season, and was especially successful in shooting fouls. The defence played a good steady game and marked their men well.

The teams lined up as follows:—  
O. A. C.                      MACDONALD  
Wilson,     R.F.             Hyndman  
Munro,      L.F.             C. Wilcox  
White,      Cen.             Schafheitlin  
Horobin,   R.G.             Hodge  
Foley       L.G.             Cooke  
Referees—Mr. McGuire, Mr. Gillus.

Although lacking a little in weight, some very promising material has come to the front, and one or two should be first class players before long.

Schedule:—

Date	Teams	Won by	Score
Feb. 7.	N. Branch	Macdonald	38—28
" 14.	Railroad	"	31—21
" 19.	N. Branch	N. Branch	By default
" 28.	Railroad	Railroad	27— 9
March 7.	N. Branch	N. Branch	29—16
" 14.	Railroad	Railroad	20—24



**INTER-YEAR BASKET BALL.**

The inter-class games have been marked by the usual keenness and rivalry with the result that some of the best struggles of the season have been seen on the floor during these games. In

LEAGUE STANDING	WON	LOST
Seniors	3	0
Sophomores	1	1
Freshmen	1	1
Juniors	0	3



Macdonald Baseball Team.

these contests the gallery does much to stimulate excitement and to work the players up to that pitch that always makes for a good fight. As was naturally expected, with four men on the first team, the Seniors head the league. They have a strong defence and one that caused a good deal of trouble to the opposing years. The Juniors have been somewhat handicapped by Evans' inability to play for them at the beginning of the season.

**BASEBALL.**

Owing to the fact that we were unable to get into any of the city leagues at the beginning of the year, five games only have been played so far this last season. The results, however, have been very satisfactory, for we have only lost one game, and that was against the Faculty.

The Guelph game this year proved to be fast and exciting and the score of 17—16 is a fit indication of the close

and thrilling play. Ricker kept his men together in splendid form, and the team play and keenness of our fellows were the main factors in upsetting the O. A. C. aggregation.

The Guelph boys started in with a great show of spirit to walk away with the game, scoring five runs in the first innings. This looked somewhat ominous and it was an innings or two before our fellows settled down to the game. However by steady and consistent team play they succeeded in overcoming their opponents, lead in the seventh innings, and retained their lead to the end. Rowland, Guelph's left fielder, played a remarkable game, catching two swiftly driven balls that looked undoubtedly safe. Both batteries played a steady reliable game, and it was here that Macdonald seemed to have the advantage. Evans kept his control well throughout and was ably assisted by Huestis, catching, who was right on the spot the whole time.

Prof. Barton of Macdonald, and Mr. Baker of Guelph, were the umpires and handled the game in a most satisfactory and able manner. It was a game to be remembered. Both teams were alert and wide-awake, taking advantage of every opportunity that presented itself.

The catchy songs rendered by the girls and the cheering of the boys were duly appreciated by all and helped to make the game one of the best that has been seen at Macdonald.

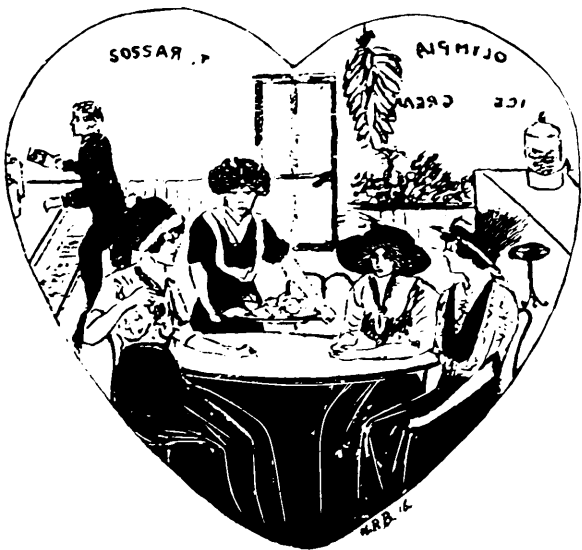
The teams lined up as follows:—

O. A. C.		MACDONALD
O'Hare	C.	Huestis
Forsythe	P.	Evans
Burrows	1st b.	Ricker
Seitz	2nd b.	Jones
Duff	3rd b.	Hay
Nielands	S.S.	Hodge
Ferguson	r.f.	Cooke
Rowland	l.f.	Drayton
Bryden	c.f.	Roy

Umpires:—Prof. Barton and Mr. Baker.

The inter-year baseball schedule has not yet been completed. The years have been evenly matched and some close games have been the result.

LEAGUE STANDING	WON	LOST
Seniors	2	1
Juniors	2	1
Sophomores	1	1
Freshmen	0	2



Antibiotic Relationship



## Girls' Athletics.



First Basket-Ball Team—Macdonald Girls.



BEFORE we leave our Alma Mater, it is only fitting that we should have a splendid showing in Athletics; and our girls deserve all the honor which has fallen to their lot in this our last College term.

Since the last number was issued, both the first and second teams basket-ball have been picked. The girls on the teams are as follows:

### FIRST TEAM.

Forwards.....	{ J. Dettmers. M. Brown.
Centres.....	{ W. Cross. J. Lemessurier.
Defences.....	{ L. Chaskelson. E. Dudgeon.

### SECOND TEAM.

Forwards.....	{ O. Tait. M. Biltcliffe.
Centres.....	{ T. Dilworth.. H. O'Connor.
Defences.....	{ M. Way. R. Tenny.

Spares: E. Scarff, M. Dowler, V. Gardiner.

Since the beginning of January a great many games have been played. On Jan. 31st, the second team of Macdonald played the second team basket-ball R.V.C., at Victoria School. The game was most exciting, and ended up in a victory for Macdonald with a score of



Second Basket-Ball Team—Macdonald Girls.



23-20. We were indeed proud of our girls to think they had done so well.

Another game of basket-ball was played on Feb. 7th, between first team Macdonald and Montreal Teachers. Both sides worked hard to win, but

On Feb. 14th the first team Macdonald played the first team R.V.C., in a basket-ball game at Victoria School, Montreal, and we are all proud to say that our first team won with a score of 25-20.



Macdonald Girls' Hockey Team.

finally it ended in a victory for the Teachers with a score of 22-19.

The same day the second team Macdonald played the second team Montreal Teachers, at Victoria School, Montreal; but hurrah for Macdonald! this time we won with a score of 23-19.

The same day the second team of Macdonald played the second team of Commercial Technical Alumni. The result was a victory for C.T.A.

On February 25th, a most exciting game of hockey was played between R.V.C. and Macdonald, on Macdonald.



rink. Those playing for Macdonald were as follows:

Goal.....	E. Petts.
Defences.....	K. McAvity.
Rover.....	J. Dettmers.
Centre.....	P. Leet.
Wings.....	{ S. Raymond.
	{ G. Norris.
Spare.....	R. Henry.

last minute Miss Leet put in a goal, making the game 2-2—a tie.

We must not forget to congratulate the R.V.C. girls on their good playing.

Another most exciting day was the following Saturday, the 28th, when the first and second teams R.V.C., W.A.A., R.V.C. Alumni, and Montreal Teachers came out fully prepared to play five games of basket ball; and they did it.



Girls' Athletic Committee.

The ice was good, and our girls were more than excited. The first goal was scored by Macdonald. On all sides of the rink could be heard the cheering for our girls.

The time was nearly up and the score was 2-1 in favour of R.V.C., when at the

The first game was played between W.A.A. and Macdonald. It was very exciting for the spectators as well as for the players, and the gym. was crowded.

At last the game ended in a victory for Macdonald, in which the score was 12-10. All our girls worked hard, and we must



congratulate our two forwards, Miss Brown and Miss Dettmers, for their excellent playing.

The next game was played between R.V.C. and Teachers, in which Teachers won with a score of 9-2.

Then Alumni and Teachers played, and Teachers were victorious again with a score of 9-5.

Another game was played between R.V.C. and W.A.A., in which W.A.A. won with a score of 11-6.

The last game which was played that afternoon was between W.A.A. and Alumni. W. A. A. won with a score of 4-3.

After all the games were over, afternoon tea was served to those on all the teams by the Science girls, daintily dressed in white dresses.

We are all sure our girls went to rest quite happy that night, since they had had such a successful afternoon.

We are now busy practicing base-ball,

hoping to get up a good team before we leave.

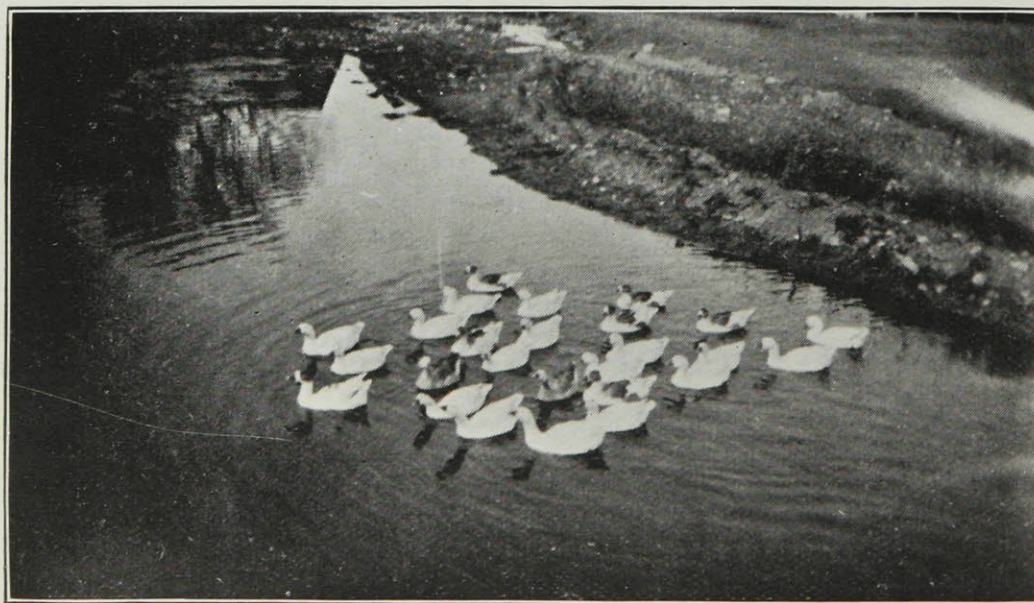
Skating is over. We are sure each night's skating was looked forward to with great pleasure after a long day's work, and we appreciated it very much.

We shall all be glad when the warm weather comes, so that we may start swimming again.

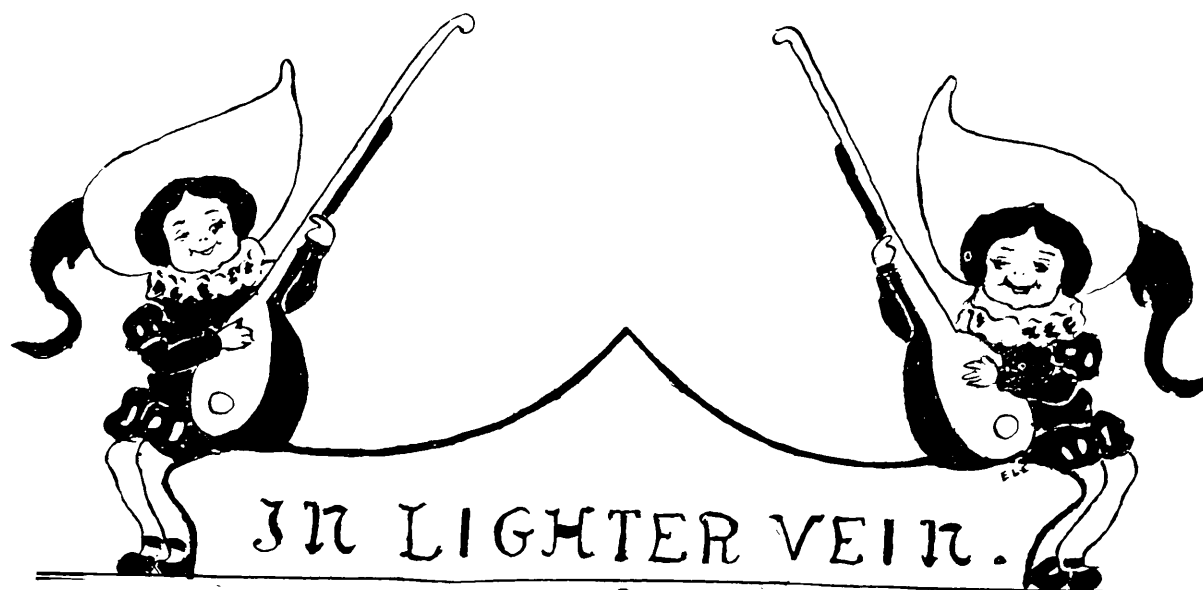
Before closing we must not forget to say that the success we have had in Athletics is due to our faithful friend, Miss Roberts, who spent night after night in the gym. coaching the girls. She certainly produced good results.

We are sure the girls will never regret the happy hours spent in the gym., and let us hope that our girls next year will take as keen an interest in sports as have our present girls; for they have all played their part well in making this a banner year in Athletics.

MARJORIE BELLE TRAVERS.



On the Pond.



**A WINNER NEVER KNOCKS.**

A WINNER never knocks,  
A KNOCKER never wins.  
A WINNER is too busy to knock,  
A KNOCKER is too busy to win.

o o o

Here's to the cheerful maiden who comes back after she gets LEMONS instead of MELONS! (Same letters in both cases, spelled differently, that's all.)

**DON'T SULK.**

Yeh, I know there are a lot of acid throwers and vinegar spillers from this side of the campus that the gunman hasn't got yet, but don't let'em sour your face into a map of misery.

Yeh, I know you can't always be A LITTLE RAY OF SUNSHINE. You are entitled to your little grouch occasionally, but listen: for goodness sake, grouch hard while you are at it, and get over it.

**DON'T SULK.**

Sulking sours the sweetness of your savory little soul, PRETTY GIRL; it swipes the saccharine from your saucy little smile.

**DON'T SULK.**

o o o

You can be well bred without "dough."

Prof: "I hope that you will have a very pleasant vacation and come back a wiser man."

Freshman: "Same to you, Sir."

o o o

A lover who kissed a girl in a quiet spot could not have kissed her on the mouth.

o o o

Science: "Mr. McKechnie, do you dance?"

Mack: "No, but I know all the holds."

o o o

Little Miss Muffet

Sat on a tuffet,

Eating Limburger cheese;

Along came a spider

And sat down beside her,

And gasped, "Put the lid on it, please."

o o o

G.T.R. Ticket Office (Montreal)

Student: "Have you any late trains out to St. Annes?"

Agent: Yes, all our trains are late."

o o o

A bachelor is a man who gets peevish whenever he happens to remember that he is one rib short.

o o o

El Ranko Imperfecto.

Where there is smoke there is often a punk cigar.

Put me among the Girls!

JUST IMAGINE.

Sadler on time for breakfast.



BISCUITS THE CAUSE.

He ate a dining room biscuit and the  
*current* killed him.

o o o

RATTLED.

It was Bill N-t-n's first evening as  
usher in the assembly hall, and he was a  
bit flustered. Turning to a lady he  
said, "This way, madam, and I will sew  
you into a sheet."

o o o

Juniors (in unison): "Boost KID-  
DUMS for the popularity contest."

Russell (feverishly): "Aw! don't  
fellows, I don't want her to get popular."

HOW LIKE A HUMAN BEING.

When a rumor says,  
"A shocking show!"  
Old Mr. Blank  
Is bound to go.

When the critics call  
The show impure,  
The seats will all  
Be taken sure.

When told a book  
Is naughty—bad!  
Gets it the hook?  
Naw—sells like mad.



*ARE THERE  
PRESENTATIONS  
TO MAKE BE-  
FORE CLOSING?*

*IF UNABLE TO  
COME TO THE  
STORE, OUR  
CATALOGUE  
WILL HELP YOU  
TO DECIDE.*

**BIRKS**

PHILLIPS SQUARE  
MONTREAL











